R. Meyer

The Works of George Berkeley

Vol. I

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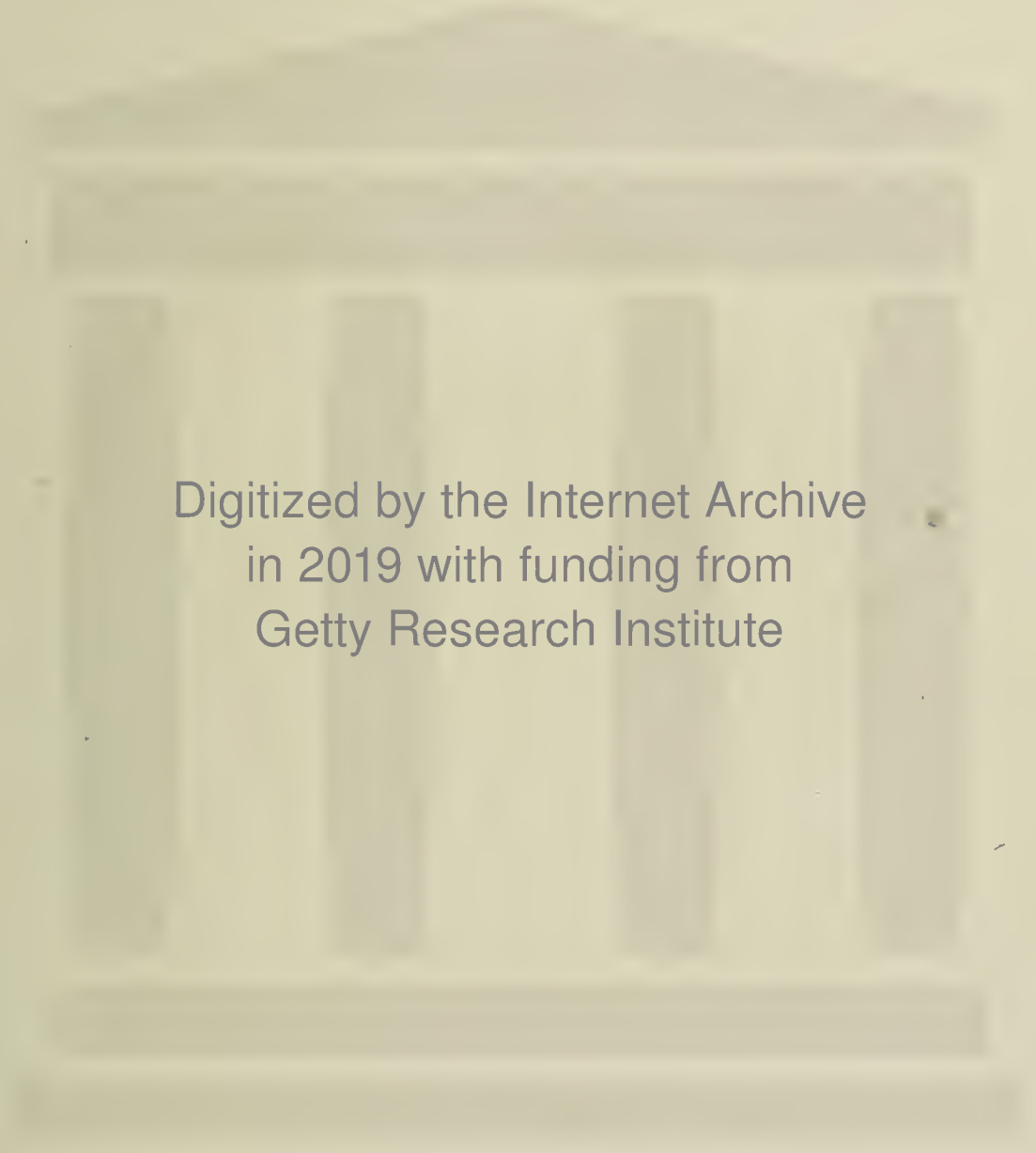
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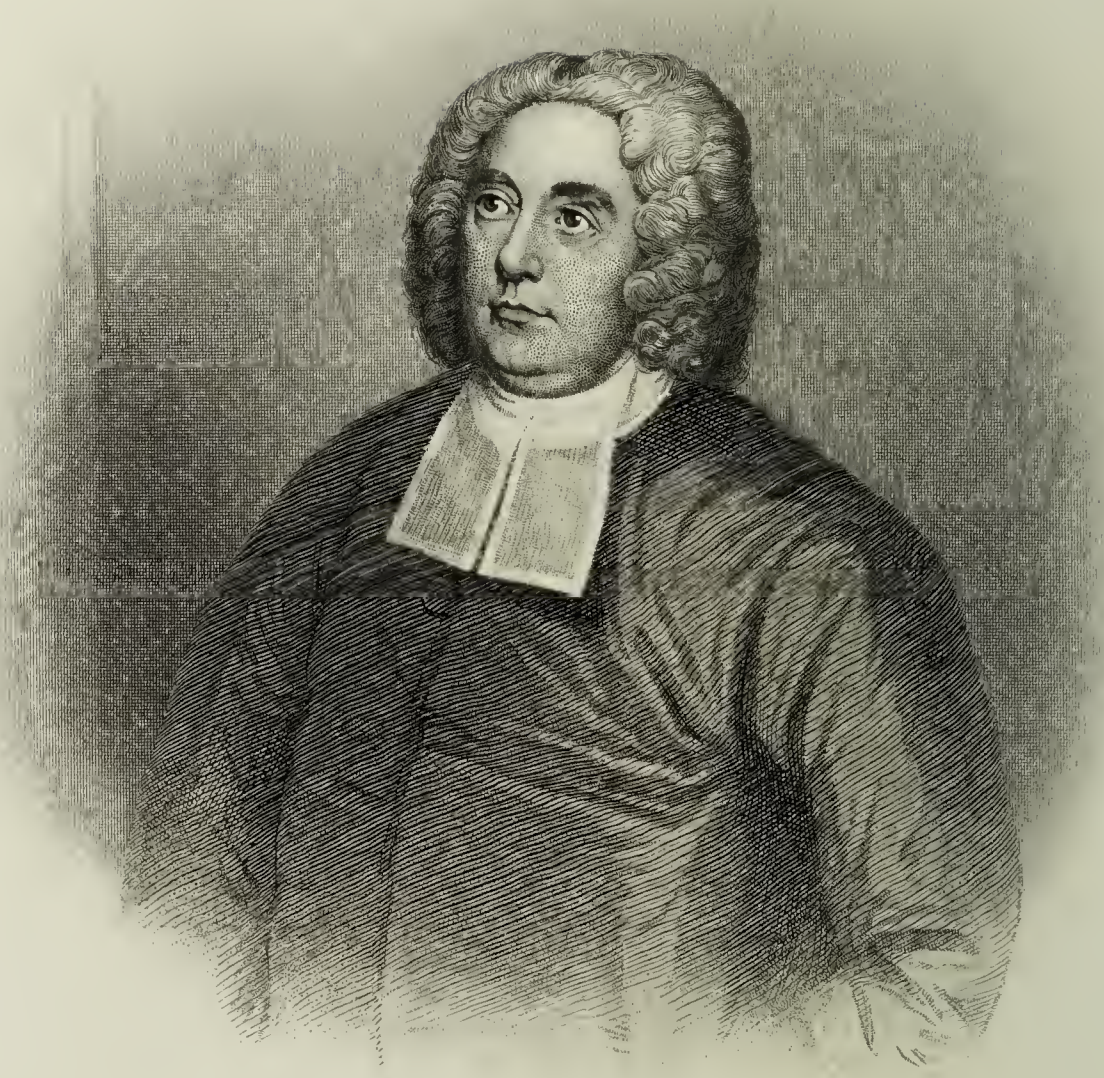

Yrs affectionately
G. Berkeley

The

Works of George Berkeley

D.D.; Formerly Bishop of Cloyne

Including his Posthumous Works

With Prefaces, Annotations, Appendices, and
An Account of his Life, by

Alexander Campbell Fraser

Hon. D.C.L. Oxford

Hon. LL.D. Glasgow and Edinburgh; Emeritus Professor
of Logic and Metaphysics in the University of Edinburgh

In Four Volumes

Vol. I: Philosophical Works, 1705–21

Oxford

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PREFACE

More than thirty years ago I was honoured by a request to prepare a complete edition of the Works of Bishop Berkeley, with Notes, for the Clarendon Press, Oxford. That edition, which contains many of his writings previously unpublished, appeared in 1871. It was followed in 1874 by a volume of annotated Selections from his philosophical works; and in 1881 I prepared a small volume on 'Berkeley' for Blackwood's 'Philosophical Classics.'

The 1871 edition of the Works originated, I believe, in an essay on 'The Real World of Berkeley,' which I gave to *Macmillan's Magazine* in 1862, followed by another in 1864, in the *North British Review*. These essays suggested advantages to contemporary thought which might be gained by a consideration of final questions about man and the universe, in the form in which they are presented by a philosopher who has suffered more from misunderstanding than almost any other modern thinker. During a part of his lifetime, he was the foremost metaphysician in Europe in an unmetaphysical generation. And in this country, after a revival of philosophy in the later part of the eighteenth century, *idea*, *matter*, *substance*, *cause*, and other terms which play an important part in his writings, had lost the meaning that he in-

tended; while in Germany the sceptical speculations of David Hume gave rise to a reconstructive criticism, on the part of Kant and his successors, which seemed at the time to have little concern with the *a posteriori* methods and the principles of Berkeley.

The success of the attempt to recall attention to Berkeley has far exceeded expectation. Nearly twenty thousand copies of the three publications mentioned above have found their way into the hands of readers in Europe and America; and the critical estimates of Berkeley, by eminent writers, which have appeared since 1871, in Britain, France, Germany, Denmark, Holland, Italy, America, and India, confirm the opinion that his Works contain a word in season, even for the twentieth century. Among others who have delivered appreciative criticisms of Berkeley within the last thirty years are J. S. Mill, Mansel, Huxley, T. H. Green, Maguire, Collyns Simon, the Right Hon. A. J. Balfour, Mr. Leslie Stephen, Dr. Hutchison Stirling, Professor T. K. Abbott, Professor Van der Wyck, M. Penjon, Ueberweg, Frederichs, Ulrici, Janitsch, Eugen Meyer, Spicker, Loewy, Professor Höffding of Copenhagen, Dr. Lorenz, Noah Porter, and Krauth, besides essays in the chief British, Continental, and American reviews. The text of those Works of Berkeley which were published during his lifetime, enriched with a biographical Introduction by Mr. A. J. Balfour, carefully edited by Mr. George Sampson, appeared in 1897. In 1900 Dr. R. Richter, of the University of Leipsic, produced a new translation into German of the *Dialogues between Hylas and Philonous*, with an

excellent Introduction and notes. These estimates form a remarkable contrast to the denunciations, founded on misconception, by Warburton and Beattie in the eighteenth century.

In 1899 I was unexpectedly again asked by the Delegates of the Oxford University Press to prepare a New Edition of Berkeley's Works, with some account of his life, as the edition of 1871 was out of print; a circumstance which I had not expected to occur in my lifetime. It seemed presumptuous to undertake what might have been entrusted to some one probably more in touch with living thought; and in one's eighty-second year, time and strength are wanting for remote research. But the recollection that I was attracted to philosophy largely by Berkeley, in the morning of life more than sixty years ago, combined with the pleasure derived from association in this way with the great University in which he found an academic home in his old age, moved me in the late evening of life to make the attempt. And now, at the beginning of the twentieth century, I offer these volumes, which still imperfectly realise my ideal of a final Oxford edition of the philosopher who spent his last days in Oxford, and whose mortal remains rest in its Cathedral.

Since 1871 materials of biographical and philosophical interest have been discovered, in addition to the invaluable collection of MSS. which Archdeacon Rose then placed at my disposal, and which were included in the supplementary volume of *Life and Letters*. Through the kindness of the late Earl of Egmont I had access, some years ago, to a large

number of letters which passed between his ancestor, Sir John (afterwards Lord) Percival, and Berkeley, between 1709 and 1730. I have availed myself freely of this correspondence.

Some interesting letters from and concerning Berkeley, addressed to his friend Dr. Samuel Johnson of Stratford in Connecticut, afterwards President of King's College in New York, appeared in 1874, in Dr. Beardsley's *Life of Johnson*, illustrating Berkeley's history from 1729 till his death. For these and for further information I am indebted to Dr. Beardsley.

In the present edition of Berkeley's Works, the Introductions and the annotations have been mostly re-written. A short account of his romantic life is prefixed, intended to trace its progress in the gradual development and application of his initial Principle; and also the external incidents of his life in their continuity, with the help of the new material in the Percival MSS. and the correspondence with Johnson. It forms a key to the whole. This biography is not intended to supersede the *Life and Letters* of Berkeley that accompanied the 1871 edition, which remains as a magazine of facts for reference.

The rearrangement of the Works is a feature in the present edition. Much of the new material that was included in the 1871 edition reached me when the book was far advanced in the press, and thus the chronological arrangement, strictly followed in the present edition, was not possible. A chronological arrangement is suggested by Berkeley himself. 'I

could wish that all the things I have published on these philosophical subjects were read in the order wherein I published them,' are his words in one of his letters to Johnson; 'and a second time with a critical eye, adding your own thought and observation upon every part as you went along.'

The first three volumes in this edition contain the Philosophical Works exclusively; arranged in chronological order, under the three periods of Berkeley's life. The First Volume includes those of his early life; the Second those produced in middle life; and the Third those of his later years. The Miscellaneous Works are presented in like manner in the Fourth Volume.

The four little treatises in which Berkeley in early life unfolded his new thought about the universe, along with his college *Commonplace Book* published in 1871, which prepared the way for them, form, along with the Life, the contents of the First Volume. It is of them that the author writes thus, in another of his letters to Johnson:—'I do not indeed wonder that on first reading what I have written men are not thoroughly convinced. On the contrary, I should very much wonder if prejudices which have been many years taking root should be extirpated in a few hours' reading. I had no inclination to trouble the world with large volumes. What I have done was rather with a view of giving hints to thinking men, who have leisure and curiosity to go to the bottom of things, and pursue them in their own minds. Two or three times reading these small tracts, and making what is read the occasion of thinking, would, I believe,

render the whole familiar and easy to the mind, and take off that shocking appearance which hath often been observed to attend speculative truths.' Except Johnson, none of Berkeley's eighteenth-century critics seem to have observed this rule.

Alciphron, or The Minute Philosopher, with its supplement in the *Theory of Visual Language Vindicated*, being the philosophical works of his middle life, associated with its American enterprise, form the Second Volume. In them the conception of the universe that was unfolded in the early writings is applied, in vindication of religious morality and Christianity, against the Atheism attributed to those who called themselves Free-thinkers; who were treated by Berkeley as, at least by implication, atheistic.

The Third Volume contains the *Analyst* and *Siris*, which belong to his later life, *Siris* being especially characteristic of its serene quiet. In both there is a deepened sense of the mystery of the universe, and in *Siris* especially a more comprehensive conception of the final problem suggested by human life. But the metaphysics of the one is lost in mathematical controversy; that of the other in medical controversy, and in undigested ancient and mediæval learning. The metaphysical importance of *Siris* was long unrecognised, although in it Berkeley's thought culminates, not in a paradox about Matter, but in the conception of God as the concatenating principle of the universe; yet this reached through the conception of Matter as real only in and through living Mind.

The Miscellaneous Works, after the two juvenile Latin tracts in mathematics, deal with observations of nature and man gathered in his travels, questions

of social economy, and lessons in religious life. Several are posthumous, and were first published in the 1871 edition. Of these, perhaps the most interesting is the *Journal in Italy*. The *Discourse on Passive Obedience* is the nearest approach to ethical theory which Berkeley has given to us, and as such it might have taken its place in the First Volume; but on the whole it seemed more appropriately placed in the Fourth, where it is easily accessible for those who prefer to read it immediately after the book of *Principles*.

I have introduced, in an Appendix to the Third Volume, some matter of philosophical interest for which there was no place in the editorial Prefaces or in the annotations. The historical significance of Samuel Johnson and Jonathan Edwards, as pioneers of American philosophy, and also advocates of the new conception of the material world that is associated with Berkeley, is recognised in Appendix C. Illustrations of the misinterpretation of Berkeley by his early critics are presented in Appendix D. A lately discovered tractate by Berkeley forms Appendix E. In the Fourth Volume, numerous queries contained in the first edition of the *Querist*, and omitted in the later editions, are given in an Appendix, which enables the reader to reconstruct that interesting tract in the form in which it originally appeared.

The present edition is thus really a new work, which possesses, I hope, a certain philosophical unity, as well as pervading biographical interest.

As Berkeley is the immediate successor of Locke, and as he was educated by collision with the *Essay*

on Human Understanding, perhaps Locke ought to have had more prominence in the editorial portion of this book. Limitation of space partly accounts for the omission; and I venture instead to refer the reader to the Prolegomena and notes in my edition of Locke's *Essay*, which was published by the Clarendon Press in 1894. I may add that an expansion of thoughts which run through the Life and many of the annotations, in this edition of Berkeley, may be found in my *Philosophy of Theism*[1].

The reader need not come to Berkeley in the expectation of finding in his Works an all-comprehensive speculative system like Spinoza's, or a reasoned articulation of the universe of reality such as Hegel is supposed to offer. But no one in the succession of great English philosophers has, I think, proposed in a way more apt to invite reflexion, the final alternative between Unreason, on the one hand, and Moral Reason expressed in Universal Divine Providence, on the other hand, as the root of the unbeginning and endless evolution in which we find ourselves involved; as well as the further question, Whether this tremendous practical alternative *can* be settled by any means that are within the reach of man? His Philosophical Works, taken collectively, may encourage those who see in a reasonable *via media* between Omniscience and Nescience the true path of progress, under man's inevitable venture of reasonable Faith.

One is therefore not without hope that a fresh

[1] *Philosophy of Theism*: The Gifford Lectures delivered before the University of Edinburgh in 1894-96. (Second Edition, 1899.)

impulse may be given to philosophy and religious thought by this reappearance of George Berkeley, under the auspices of the University of Oxford, at the beginning of the twentieth century. His readers will at any rate find themselves in the company of one of the most attractive personalities of English philosophy, who is also among the foremost of those thinkers who are masters in English literature—Francis Bacon and Thomas Hobbes, George Berkeley and David Hume.

A. CAMPBELL FRASER.

Gorton. Hawthornden, Midlothian,
March, 1901.

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GEORGE BERKELEY

BY THE EDITOR

I

Early Life (1685–1721).

Towards the end of the reign of Charles the Second a certain William Berkeley, according to credible tradition, occupied a cottage attached to the ancient Castle of Dysert, in that part of the county of Kilkenny which is watered by the Nore. Little is known about this William Berkeley except that he was Irish by birth and English by descent. It is said that his father went over to Ireland soon after the Restoration, in the suite of his reputed kinsman, Lord Berkeley of Stratton, when he was Lord Lieutenant. William Berkeley's wife seems to have been of Irish blood, and in some remote way related to the family of Wolfe, the hero of Quebec. It was in the modest abode in the valley of the Nore that George, the eldest of their six sons, was born, on March 12, 1685.

There is nothing in the recorded family history of these Dysert Berkeleys that helps to explain the singular personality and career of the eldest son. The parents have left no mark, and make no appearance in any extant records of the family. They probably made their way to the valley of the Nore among families of English connexion who, in the quarter of a century preceding the birth of George Berkeley, were finding settlements in Ireland. The family, as it appears, was not wealthy, but was recognised as of gentle blood. Robert, the fifth son,

became rector of Middleton and vicar-general of Cloyne; and another son, William, held a commission in the army. According to the Register of Trinity College, one of the sons was born 'near Thurles,' in 1699, and Thomas, the youngest, was born in Tipperary, in 1703, so that the family may have removed from Dysert after the birth of George. In what can be gleaned of the younger sons, one finds little appearance of sympathy with the religious and philosophical genius of the eldest.

Regarding this famous eldest son in those early days, we have this significant autobiographical fragment in his *Commonplace Book*: 'I was distrustful at eight years old, and consequently by nature disposed for the new doctrines.' In his twelfth year we find the boy in Kilkenny School. The register records his entrance there in the summer of 1696, when he was placed at once in the second class, which seems to imply precocity, for it is almost a solitary instance. He spent the four following years in Kilkenny. The School was in high repute for learned masters and famous pupils; among former pupils were the poet Congreve and Swift, nearly twenty years earlier than George Berkeley; among his school-fellows was Thomas Prior, his life-long friend and correspondent. In the days of Berkeley and Prior the head master was Dr. Hinton, and the School was still suffering from the consequences of 'the warre in Ireland' which followed the Revolution.

Berkeley in Kilkenny School is hardly visible, and we have no means of estimating his mental state when he left it. Tradition says that in his school-days he was wont to feed his imagination with airy visions and romance, a tradition which perhaps originated long after in popular misconceptions of his idealism. Dimly discernible at Kilkenny, only a few years later he was a conspicuous figure in an island that was then beginning to share in the intellectual movement of the modern world, taking

his place as a classic in English literature, and as the most subtle and ardent of contemporary English-speaking thinkers.

In March, 1700, at the age of fifteen, George Berkeley entered Trinity College, Dublin. This was his home for more than twenty years. He was at first a mystery to the ordinary undergraduate. Some, we are told, pronounced him the greatest dunce, others the greatest genius in the College. To hasty judges he seemed an idle dreamer; the thoughtful admired his subtle intelligence and the beauty of his character. In his undergraduate years, a mild and ingenuous youth, inexperienced in the ways of men, vivacious, humorous, satirical, in unexpected ways inquisitive, often paradoxical, through misunderstandings he persisted in his own way, full of simplicity and enthusiasm. In 1704 (the year in which Locke died) he passed Bachelor of Arts, and became Master in 1707, when he was admitted to a Fellowship, 'the only reward of learning which that kingdom had to bestow.'

In Trinity College the youth found himself on the tide of modern thought, for the 'new philosophy' of Newton and Locke was then invading the University. Locke's *Essay*, published in 1690, was already in vogue. This early recognition of Locke in Dublin was chiefly due to William Molyneux, Locke's devoted friend, a lawyer and member of the Irish Parliament, much given to the experimental methods. Descartes, too, with his sceptical criticism of human beliefs, yet disposed to spiritualise powers commonly attributed to matter, was another accepted authority in Trinity College; and Malebranche was not unknown. Hobbes was the familiar representative of a finally materialistic conception of existence, reproducing in modern forms the atomism of Democritus and the ethics of Epicurus. Above all, Newton was acknowledged master in physics, whose *Principia*, issued three

years sooner than Locke's *Essay*, was transforming the conceptions of educated men regarding their surroundings, like the still more comprehensive law of physical evolution in the nineteenth century.

John Toland, an Irishman, one of the earliest and ablest of the new sect of Free-thinkers, made his appearance at Dublin in 1696, as the author of *Christianity not Mysterious*. The book was condemned by College dignitaries and dignified clergy with even more than Irish fervour. It was the opening of a controversy that lasted over half of the eighteenth century in England, in which Berkeley soon became prominent; and it was resumed later on, with greater intellectual force and in finer literary form, by David Hume and Voltaire. The collision with Toland about the time of Berkeley's matriculation may have awakened his interest. Toland was supposed to teach that matter is eternal, and that motion is its essential property, into which all changes presented in the outer and inner experience of man may at last be resolved. Berkeley's life was a continual protest against these dogmas. The Provost of Trinity College in 1700 was Dr. Peter Browne, who had already entered the lists against Toland; long after, when Bishop of Cork, he was in controversy with Berkeley about the nature of man's knowledge of God. The Archbishop of Dublin in the early years of the eighteenth century was William King, still remembered as a philosophical theologian, whose book on the *Origin of Evil*, published in 1702, was criticised by Boyle and Leibniz.

Dublin in those years was thus a place in which a studious youth, who had been 'distrustful at eight years old,' might be disposed to entertain grave questions about the ultimate meaning of his visible environment, and of the self-conscious life to which he was becoming awake. Is the universe of existence confined to the visible world, and is matter the really active power in existence? Is God

the root and centre of all that is real, and if so, what is meant by God? Can God be good if the world is a mixture of good and evil? Questions like these were ready to meet the inquisitive Kilkenny youth in his first years at Dublin.

One of his earliest interests at College was mathematical. His first appearance in print was as the anonymous author of two Latin tracts, *Arithmetica* and *Miscellanea Mathematica*, published in 1707. They are interesting as an index of his intellectual inclination when he was hardly twenty; for he says they were prepared three years before they were given to the world. His disposition to curious questions in geometry and algebra is further shewn in his College *Commonplace Book*.

This lately discovered *Commonplace Book* throws a flood of light upon Berkeley's state of mind between his twentieth and twenty-fourth year. It is a wonderful revelation; a record under his own hand of his thoughts and feelings when he first came under the inspiration of a new conception of the nature and office of the material world. It was then struggling to find adequate expression, and in it the sanguine youth seemed to find a spiritual panacea for the errors and confusions of philosophy. It was able to make short work, he believed, with atheistic materialism, and could dispense with arguments against sceptics in vindication of the reality of experience. The mind-dependent existence of the material world, and its true function in the universe of concrete reality, were to be disclosed under the light of a new transforming self-evident Principle. 'I wonder not at my sagacity in discovering the obvious and amazing truth. I rather wonder at my stupid inadvertency in not finding it out before—'tis no witchcraft to see.' The pages of the *Commonplace Book* give vent to rapidly forming thoughts about the things of sense and the 'ambient space' of a youth entering into reflective life, in company with Descartes

and Malebranche, Bacon and Hobbes, above all, Locke and Newton; who was trying to translate into reasonableness his faith in the reality of the material world and God. Under the influence of this new conception, he sees the world like one awakening from a confused dream. The revolution which he wanted to inaugurate he foresaw would be resisted. Men like to think and speak about things as they have been accustomed to do: they are offended when they are asked to exchange this for what appears to them absurdity, or at least when the change seems useless. But in spite of the ridicule and dislike of a world long accustomed to put empty words in place of living thoughts, he resolves to deliver himself of his burden, with the politic conciliation of a skilful advocate however; for he characteristically reminds himself that one who 'desires to bring another over to his own opinions must seem to harmonize with him at first, and humour him in his own way of talking.'

In 1709, when he was twenty-four years old, Berkeley presented himself to the world of empty verbal reasoners as the author of what he calls modestly *An Essay towards a New Theory of Vision*. It was dedicated to Sir John Percival, his correspondent afterwards for more than twenty years; but I have not discovered the origin of their friendship. The *Essay* was a pioneer, meant to open the way for the disclosure of the Secret with which he was burdened, lest the world might be shocked by an abrupt disclosure. In this prelude he tries to make the reader recognise that in ordinary seeing we are always interpreting visual signs; so that we have daily presented to our eyes what is virtually an intelligible natural language; so that in all our intercourse with the visible world we are in intercourse with all-pervading active Intelligence. We are reading absent data of touch and of the other senses in the language of their visual signs. And the

visual signs themselves, which are the immediate objects of sight, are necessarily dependent on sentient and percipient mind; whatever may be the case with the tangible realities which the visual data signify, a fact evident by our experience when we make use of a looking-glass. The material world, so far at least as it presents itself visibly, is *real* only in being *realised* by living and seeing beings. The mind-dependent *visual* signs of which we are conscious are continually speaking to us of an invisible and distant world of *tangible* realities; and through the natural connexion of the visual signs with their tactual meanings, we are able in seeing practically to perceive, not only what is distant in space, but also to anticipate the future. The Book of Vision is in literal truth a Book of Prophecy. The chief lesson of the tentative *Essay on Vision* is thus summed up:—

'Upon the whole, I think we may fairly conclude that the proper objects of Vision constitute the Universal Language of Nature; whereby we are instructed how to regulate our actions in order to attain those things that are necessary to the preservation and well-being of our bodies, as also to avoid whatever may be hurtful and destructive of them. And the manner wherein they signify and mark out unto us the objects which are at a distance is the same with that of languages and signs of human appointment; which do not suggest the things signified by any likeness or identity of nature, but only by an habitual connexion that experience has made us to observe between them. Suppose one who had always continued blind be told by his guide that after he has advanced so many steps he shall come to the brink of a precipice, or be stopped by a wall; must not this to him seem very admirable and surprising? He cannot conceive how it is possible for mortals to frame such predictions as these, which to him would seem as strange and unaccountable as prophecy does to others. Even

they who are blessed with the visive faculty may (though familiarity make it less observed) find therein sufficient cause of admiration. The wonderful art and contrivance wherewith it is adjusted to those ends and purposes for which it was apparently designed; the vast extent, number, and variety of objects that are at once, with so much ease and quickness and pleasure, suggested by it—all these afford subject for much and pleasing speculation, and may, if anything, give us some glimmering analogous prænotion of things that are placed beyond the certain discovery and comprehension of our present state[1].'

Berkeley took orders in the year in which his *Essay on Vision* was published. On February 1, 1709, he was ordained as deacon, in the chapel of Trinity College, by Dr. George Ashe, Bishop of Clogher. Origen and Augustine, Anselm and Aquinas, Malebranche, Fénelon, and Pascal, Cudworth, Butler, Jonathan Edwards, and Schleiermacher, along with Berkeley, are among those who are illustrious at once in the history of philosophy and of the Christian Church. The Church, it has been said, has been for nearly two thousand years the great Ethical Society of the world, and if under its restrictions it has been less conspicuous on the field of philosophical criticism and free inquiry, these names remind us of the immense service it has rendered to meditative thought.

The light of the Percival correspondence first falls on Berkeley's life in 1709. The earliest extant letters from Berkeley to Sir John Percival are in September, October, and December of that year, dated at Trinity College. In one of them he pronounces Socrates 'the best and most admirable man that the heathen world has produced.' Another letter, in March, 1710, accompanies a copy of the second edition of the *Essay on Vision*. 'I have made some alterations and additions in the body of the treatise,' he says, 'and in the appendix have endeavoured to meet the

[1] *Essay on Vision*, sect. 147, 148.

objections of the Archbishop of Dublin;' whose sermon he proceeds to deprecate, for 'denying that goodness and understanding are more to be affirmed of God than feet or hands,' although all these may, in a metaphorical sense. How far, or whether at all, God is knowable by man, was, as we shall see, matter of discussion and controversy with Berkeley in later life; but this shews that the subject was already in his thoughts. Returning to the *Essay on Vision*, he tells Sir John that 'there remains one objection, that with regard to the uselessness of that book of mine; but in a little time I hope to make what is there laid down appear subservient to the ends of morality and religion, in a *Treatise* I have in the press, the design of which is to demonstrate the existence and attributes of God, the immortality of the soul, the reconciliation of God's foreknowledge and the freedom of man; and by shewing the emptiness and falsehood of several parts of the speculative sciences, to induce men to the study of religion and things useful. How far my endeavours will prove successful, and whether I have been all this time in a dream or no, time will shew. I do not see how it is possible to demonstrate the being of a God on the principles of the Archbishop—that strictly goodness and understanding can no more be assumed of God than that He has feet or hands; there being no argument that I know for God's existence which does not prove Him at the same time to be an understanding and benevolent being, in the strict, literal, and proper meaning of these words.' He adds, 'I have written to Mr. Clarke to give me his thoughts on the subject of God's existence, but have got no answer.'

The work foreshadowed in this letter appeared in the summer of 1710, as the 'First part' of a *Treatise concerning the Principles of Human Knowledge, wherein the chief causes of error and difficulty in the Sciences, with the grounds of Scepticism, Atheism, and Irreligion, are inquired into.* In this fragment of a larger work, never finished, Berkeley's

spiritual conception of matter and cosmos is unfolded, defended, and applied. According to the *Essay on Vision*, the world, as far as it is visible, is dependent on living mind. According to this book of *Principles* the whole material world, as far as it can have any practical concern with the knowings and doings of men, is real only by being realised in like manner in the percipient experience of some living mind. The concrete world, with which alone we have to do, could not exist in its concrete reality if there were no living percipient being in existence to actualise it. To suppose that it could would be to submit to the illusion of a metaphysical abstraction. Matter unrealised in its necessary subordination to some one's percipient experience is the chief among the illusions which philosophers have been too ready to encourage, and which the mass of mankind, who accept words without reflecting on their legitimate meanings, are ready to accept blindly. But we have only to reflect in order to see the absurdity of a material world such as we have experience of existing without ever being realised or made concrete in any sentient life. Try to conceive an eternally dead universe, empty for ever of God and all finite spirits, and you find you cannot. Reality can be real only in a living form. Percipient life underlies or constitutes all that is real. The *esse* of the concrete material world is *percipi*. This was the 'New Principle' with which the young Dublin Fellow was burdened—the Secret of the universe which he had been longing to discharge upon mankind for their benefit, yet without sign of desire to gain fame for himself as the discoverer. It is thus that he unfolds it:—

'Some truths there are so near and obvious to the mind that a man need only open his eyes to see them. Such I take this important one to be, viz. that all the choir of heaven and furniture of the earth, in a word, all those bodies which compose the mighty frame of the world, have not

any subsistence without a Mind; that their *being* is to be perceived or known; that consequently so long as they are not actually perceived by me, or do not exist in my mind, or that of any other created spirit, they must either have no existence at all, or else subsist in the mind of some Eternal Spirit: it being perfectly unintelligible, and involving all the absurdity of abstraction, to attribute to any single part of them an existence independent of a Spirit[1].'

This does not mean denial of the existence of the world that is daily presented to our senses and which includes our own bodies. On the contrary, it affirms, as intuitively true, the existence of the only real matter which our senses present to us. The only material world of which we have any experience consists of the appearances (misleadingly called *ideas* of sense by Berkeley) which are continually rising as real objects in a passive procession of interpretable signs, through means of which each finite person realises his own individual personality; also the existence of other finite persons; and the sense-symbolism that is more or less interpreted in the natural sciences; all significant of God. So the material world of concrete experience is presented to us as mind-dependent and in itself powerless: the deepest and truest reality must always be spiritual. Yet this mind-dependent material world is the occasion of innumerable pleasures and pains to human percipients, in so far as they conform to or contradict its customary laws, commonly called the laws of nature. So the sense-symbolism in which we live is found to play an important part in the experience of percipient beings. But it makes us sceptics and atheists when, in its name, we put a supposed dead abstract matter in room of the Divine Active Reason of which all natural order is the continuous providential expression.

Accordingly, God must exist, because the material world, in order to be a real world, needs to be continually

[1] *Principles*, sect. 6.

realised and regulated by living Providence; and we have all the certainty of sense and sanity that there *is* a (mind-dependent) material world, a boundless and endlessly evolving sense-symbolism.

In the two years after the disclosure of his New Principle we see Berkeley chiefly through his correspondence with Percival. He was eager to hear the voice of criticism; but the critics were slow to speak, and when they did speak they misconceived the question, and of course his answer to it. 'If when you receive my book,' he writes from Dublin, in July, 1710, to Sir John, who was then in London, 'you can procure me the opinion of some of your acquaintances who are thinking men, addicted to the study of natural philosophy and mathematics, I shall be extremely obliged to you.' He also asks Percival to present the book of *Principles* to Lord Pembroke, to whom he had ventured to dedicate it, as Locke had done his *Essay*. The reply was discouraging.

'I did but name the subject-matter of your book of *Principles* to some ingenuous friends of mine,' Percival says, 'and they immediately treated it with ridicule, at the same time refusing to read it; which I have not yet got one to do. A physician of my acquaintance undertook to describe your person, and argued you must needs be mad, and that you ought to take remedies. A bishop pitied you, that a desire and vanity of starting something new should put you upon such an undertaking; and when I justified you in that part of your character, and added other deserving qualities you have, he could not tell what to think of you. Another told me an ingenious man ought not to be discouraged from exerting his wit, and said Erasmus was not worse thought of for writing in praise of folly; but that you are not gone as far as a gentleman in town, who asserts not only that there is no such thing as Matter, but that we ourselves have no being at all.'

It is not surprising that a book which was supposed to deny the existence of all that we see and touch should be ridiculed, and its author called a madman. What vexed the author was, 'that men who had never considered my book should confound me with the sceptics, who doubt the existence of sensible things, and are not positive of any one thing, not even of their own being. But whoever reads my book with attention will see that I question not the existence of anything we perceive by our senses. Fine spun metaphysics are what on all occasions I declaim against, and if any one shall shew anything of that sort in my *Treatise* I will willingly correct it.' A material world that was real enough to yield physical science, to make known to us the existence of other persons and of God, and which signified in very practical ways happiness or misery to sentient beings, seemed to him sufficiently real for human science and all other purposes. Nevertheless, in the ardour of youth Berkeley had hardly fathomed the depths into which his New Principle led, and which he hoped to escape by avoiding the abstractions of 'fine-spun metaphysics.'

In December Percival writes from London that he has 'given the book to Lord Pembroke,' who 'thought the author an ingenious man, and to be encouraged'; but for himself he 'cannot believe in the non-existence of Matter'; and he had tried in vain to induce Samuel Clarke, the great English metaphysician, either to refute or to accept the New Principle. In February Berkeley sends an explanatory letter for Lord Pembroke to Percival's care. In a letter in June he turns to social questions, and suggests that if 'some Irish gentlemen of good fortune and generous inclinations would constantly reside in England, there to watch for the interests of Ireland, they might bring far greater advantage than they could by spending their incomes at home.' And so 1711 passes, with responses of ignorant critics; vain endeavours to draw

worthy criticism from Samuel Clarke; the author all the while doing work as a Tutor in Trinity College on a modest income; now and then on holidays in Meath or elsewhere in Ireland. Three discourses on *Passive Obedience* in the College Chapel in 1712, misinterpreted, brought on him the reproach of Jacobitism. Yet they were designed to shew that society rests on a deeper foundation than force and calculations of utility, and is at last rooted in principles of an immutable morality. Locke's favourite opinion, that morality is a demonstrable, seems to weigh with him in these *Discourses*.

But Berkeley was not yet done with the exposition and vindication of his new thought, for it seemed to him charged with supreme practical issues for mankind. In the two years which followed the publication of the *Principles* he was preparing to reproduce his spiritual conception of the universe, in the dramatic form of dialogue, convenient for dealing popularly with plausible objections. The issue was the *Three Dialogues between Hylas and Philonous*, in which Philonous argues for the absurdity of an abstract matter that is unrealised in the experience of living beings, as against Hylas, who is put forward to justify belief in this abstract reality. The design of the *Dialogues* is to present in a familiar form 'such principles as, by an easy solution of the perplexities of philosophers, together with their own native evidence, may at once recommend themselves as genuine to the mind, and rescue philosophy from the endless pursuits it is engaged in; which, with a plain demonstration of the Immediate Providence of an all-seeing God, should seem the readiest preparation, as well as the strongest motive to the study and practice of virtue[1].'

When the *Dialogues* were completed, at the end of 1712, Berkeley resolved to visit London, as he told Percival, 'in order to print my new book of Dialogues,

[1] Preface to the *Three Dialogues between Hylas and Philonous*.

and to make acquaintance with men of merit.' He got leave of absence from his College 'for the recovery of his health,' which had suffered from study, and perhaps too he remembered that Bacon commends travel as 'to the younger sort a part of education.'

Berkeley made his appearance in London in January, 1713. On the 26th of that month he writes to Percival that he 'had crossed the Channel from Dublin a few days before,' describes adventures on the road, and enlarges on the beauty of rural England, which he liked more than anything he had seen in London. 'Mr. Clarke' had already introduced him to Lord Pembroke. He had also called on his countryman Richard Steele, 'who desired to be acquainted with him. Somebody had given him my *Treatise on the Principles of Human Knowledge*, and that was the ground of his inclination to my acquaintance.' He anticipates 'much satisfaction in the conversation of Steele and his friends,' adding that 'there is lately published a bold and pernicious book, a *Discourse on Free-thinking*[1].' In February he 'dines often with Steele in his house in Bloomsbury Square,' and tells in March 'that you will soon hear of Mr. Steele under the character of the *Guardian*; he designs his paper shall come out every day as the *Spectator*.' The night before 'a very ingenious new poem upon "Windsor Forest" had been given to him by the author, Mr. Pope. The gentleman is a Papist, but a man of excellent wit and learning, one of those Mr. Steele mentions in his last paper as having writ some of the *Spectator*.' A few days later he has met 'Mr. Addison, who has the same talents as Steele in a high degree, and is likewise a great philosopher, having applied himself to the speculative studies more than any of the wits I know. I breakfasted with him at Dr. Swift's lodgings. His coming in while I was there, and the good

[1] By Anthony Collins.

temper he showed, was construed by me as a sign of the approaching coalition of parties. A play of Mr. Steele's, which was expected, he has now put off till next winter. But *Cato*, a most noble play of Mr. Addison, is to be acted in Easter week.' Accordingly, on April 18, he writes that 'on Tuesday last *Cato* was acted for the first time. I was present with Mr. Addison and two or three more friends in a side box, where we had a talk and two or three flasks of Burgundy and Champagne, which the author (who is a very sober man) thought necessary to support his spirits, and indeed it was a pleasant refreshment to us all between the Acts. Some parts of the prologue, written by Mr. Pope, a Tory and even a Papist, were hissed, being thought to savour of Whiggism; but the clap got much the better of the hiss. Lord Harley, who sat in the next box to us, was observed to clap as loud as any in the house all the time of the play.' Swift and Pope have described this famous first night of *Cato*; now for the first time we have Berkeley's report. He adds, 'This day I dined at Dr. Arbuthnot's lodging in the Queen's Palace.'

His countryman, Swift, was among the first to welcome him to London, where Swift had himself been for four years, 'lodging in Bury Street,' and sending the daily journal to Stella, which records so many incidents of that memorable London life. Mrs. Vanhomrigh and her daughter, the unhappy Vanessa, were living in rooms in the same street as Swift, and there he 'loitered, hot and lazy, after his morning's work,' and 'often dined out of mere listlessness.' Berkeley was a frequent visitor at Swift's house, and this Vanhomrigh connexion with Swift had an influence on Berkeley's fortune long afterwards. On a Sunday in April we find him at Kensington, at the Court of Queen Anne, in the company of Swift. 'I went to Court to-day,' Swift's journal records, 'on purpose to present Mr. Berkeley, one of the Fellows of

Trinity College, to Lord Berkeley of Stratton. That Mr. Berkeley is a very ingenious man, and a great philosopher, and I have mentioned him to all the ministers, and have given them some of his writings, and I will favour him as much as I can.' In this, Swift was as good as his word. 'Dr. Swift,' he adds, 'is admired both by Steele and Addison, and I think Addison one of the best natured and most agreeable men in the world.'

One day about this time, at the instance of Addison, it seems that a meeting was arranged between Berkeley and Samuel Clarke, the metaphysical rector of St. James's in Piccadilly, whose opinion he had in vain tried to draw forth two years before through Sir John Percival. Berkeley's personal charm was felt wherever he went, and even 'the fastidious and turbulent Atterbury,' after intercourse with him, is reported to have said: 'So much understanding, so much knowledge, so much innocence, and such humility, I did not think had been the portion of any but angels till I saw this gentleman.' Much was expected from the meeting with Clarke, but Berkeley had again to complain that although Clarke had neither refuted his arguments nor disproved his premisses, he had not the candour to accept his conclusion.

It was thus that Berkeley became known to 'men of merit' in that brilliant society. He was also brought among persons on whom he would hardly have conferred this title. He tells Percival that he had attended several free-thinking clubs, in the pretended character of a learner, and that he there heard Anthony Collins, author of 'the bold and pernicious book on free-thinking,' boast 'that he was able to demonstrate that the existence of God is an impossible supposition.' The promised 'demonstration' seems to have been Collins' *Inquiry Concerning Human Liberty*, which appeared two years later, according to which all that happens in mind and matter is the issue of natural necessity. Steele invited Berkeley to contribute

to the *Guardian* during its short-lived existence between March and September, 1713. He took the *Discourse* of Collins for the subject of his first essay. Three other essays are concerned with man's hope of a future life, and are among the few passages in his writings in which his philosophy is a meditation upon Death.

In May, Percival writes to him from Dublin that he hears the 'new book of Dialogues is printed, though not yet published, and that your opinion has gained ground among the learned; that Mr. Addison has come over to your view; and that what at first seemed shocking is become so familiar that others envy you the discovery, and make it their own.' In his reply in June, Berkeley mentions that 'a clergyman in Wiltshire has lately published a treatise wherein he advances something published three years ago in my *Principles of Human Knowledge*.' The clergyman was Arthur Collier, author of the *Clavis Universalis*, or demonstration of the impossibility of an external world [1].

Berkeley's *Three Dialogues* were published in June. In the middle of that same month he was in Oxford, 'a most delightful place,' where he spent two months, 'witnessed the Act and grand performances at the theatre, and a great concourse from London and the country, amongst whom were several foreigners.' The Drury Lane Company had gone down to Oxford, and *Cato* was on the stage for several nights. The Percival correspondence now first discloses this prolonged visit to Oxford in the summer of 1713, that ideal home from whence, forty years after, he departed on a more mysterious journey than any on this planet. In a letter from thence to Percival, he had claimed Arbuthnot as one of the converts to the 'new Principle.' Percival replied that Swift demurred to this, on which Berkeley rejoins: 'As to what you say of Dr. Arbuthnot not being of my opinion, it is true there

[1] See vol. III, Appendix B.

has been some difference between us concerning some notions relating to the necessity of the laws of nature; but this does not touch the main points of the non-existence of what philosophers call material substance; against which he acknowledges he can assert nothing.' One would gladly have got more than this from Berkeley, about what touched his favourite conception of the 'arbitrariness' of law in nature, as distinguished from the 'necessity' which some modern physicists are ready vaguely to take for granted.

The scene now changes. On October 15 Berkeley suddenly writes from London: 'I am on the eve of going to Sicily, as chaplain to Lord Peterborough, who is Ambassador Extraordinary on the coronation of the new king.' He had been recommended by Swift to the Ambassador, one of the most extraordinary characters then in Europe, who a few years before had astonished the world in the war of the Succession in Spain, and afterwards by his genius as a diplomatist: in Holland, nearly a quarter of a century before, he had formed an intimate friendship with John Locke. Ten months in France and Italy in the suite of Lord Peterborough brought the young Irish metaphysician, who had lately been introduced to the wits of London and the dons of Oxford, into a new world. It was to him the beginning of a career of wandering and social activity, which lasted, with little interruption, for nearly twenty years, during which metaphysics and authorship were in the background. On November 25 we find him in Paris, writing letters to Percival and Prior. 'From London to Calais,' he tells Prior, 'I came in company of a Flamand, a Spaniard, a Frenchman, and three English servants of my Lord. The three gentlemen, being of three different nations, obliged me to speak the French language (which is now familiar), and gave me the opportunity of seeing much of the world in little

compass. . . . On November 1 (O. S.) I embarked in the stage-coach, with a company that were all perfect strangers to me. There were two Scotch, and one English gentleman. One of the former happened to be the author of the *Voyage to St. Kilda* and the *Account of the Western Isles*[1]. We were good company on the road; and that day se'ennight came to Paris. I have since been taken up in viewing churches, convents, palaces, colleges, &c., which are very numerous and magnificent in this town. The splendour and riches of these things surpasses belief; but it were endless to descend to particulars. I was present at a disputation in the Sorbonne, which indeed had much of the French fire in it. I saw the Irish and the English Colleges. In the latter I saw, enclosed in a coffin, the body of the late King James. . . . To-morrow I intend to visit Father Malebranche, and discourse him on certain points.'

The Abbé D'Aubigné, as he informs Percival, was to introduce him to Malebranche, then the chief philosopher of France, whose Vision of the world in God had some affinity with Berkeley's own thought. Unfortunately we have no record of the intended interview with the French idealist, who fourteen years before had been visited by Addison, also on his way to Italy, when Malebranche expressed great regard for the English nation, and admiration for Newton; but he shook his head when Hobbes was mentioned, whom he ventured to disparage as a 'poor silly creature.' Malebranche died nearly two years after Berkeley's proposed interview; and according to a story countenanced by Dugald Stewart, Berkeley was the 'occasional cause' of his death. He found the venerable Father, we are told, in a cell, cooking, in a pipkin, a medicine for a disorder with which he was troubled. The conversation naturally turned on Berkeley's system, of which

[1] Murdoch Martin, a native of Skye, author of a *Voyage to St. Kilda* (1698), and a *Description of the Western Islands of Scotland* (1703).

Malebranche had received some knowledge from a translation. The issue of the debate proved tragical to poor Malebranche. In the heat of disputation he raised his voice so high, and gave way so freely to the natural impetuosity of a man of genius and a Frenchman, that he brought on a violent increase of his disorder, which carried him off a few days after[1]. This romantic tale is, I suspect, mythical. The Percival correspondence shews that Berkeley was living in London in October, 1715, the month in which Malebranche died, and I find no trace of a short sudden visit to Paris at that time.

After a month spent in Paris, another fortnight carried Berkeley and two travelling companions to Italy through Savoy. They crossed Mont Cenis on New Year's Day in 1714—'one of the most difficult and formidable parts of the Alps which is ever passed over by mortal man,' as he tells Prior in a letter from Turin. 'We were carried in open chairs by men used to scale these rocks and precipices, which at this season are more slippery and dangerous than at other times, and at the best are high, craggy, and steep enough to cause the heart of the most valiant man to melt within him.' At the end of other six weeks we find him at Leghorn, where he spent three months, 'while my lord was in Sicily.' He 'prefers England or Ireland to Italy: the only advantage is in point of air.' From Leghorn he writes in May a complimentary letter to Pope, on the occasion of the *Rape of the Lock*: 'Style, painting, judgment, spirit, I had already admired in your other writings; but in this I am charmed with the magic of your invention, with all those images, allusions, and inexplicable beauties which you raise so surprisingly, and at the same time so naturally, out of a trifle. . . . I remember to have heard you mention some

[1] See Stewart's *Works* (ed. Hamilton), vol. I. p. 161. There is a version of this story by De Quincey, in his quaint essay on *Murder considered as one of the Fine Arts*.

half-formed design of coming to Italy. What might we not expect from a muse that sings so well in the bleak climate of England, if she felt the same warm sun and breathed the same air with Virgil and Horace.' In July we find Berkeley in Paris on his way back to England. He had 'parted from Lord Peterborough at Genoa, where my lord took post for Turin, and thence designed passing over the Alps, and so through Savoy, on his way to England.' In August they are in London, where the aspect of English politics was changed by the death of the Queen in that month. He seems to have had a fever soon after his return. In October, Arbuthnot, in one of his chatty letters to Swift, writes thus: 'Poor philosopher Berkeley has now the *idea* of health, which was very hard to produce in him, for he had an *idea* of a strange fever upon him, so strange that it was very hard to destroy it by introducing a contrary one.'

Our record of the two following years is a long blank, first broken by a letter to Percival in July, 1715, dated at London. Whether he spent any time at Fulham with Lord Peterborough after their return from Italy does not appear, nor whether he visited Ireland in those years, which is not likely. We have no glimpses of brilliant London society as in the preceding year. Steele was now in Parliament. Swift had returned to Dublin, and Addison was the Irish chief secretary. But Pope was still at Binfield, among the glades of Windsor, and Berkeley congratulated him after receiving the first volume of his *Homer*. Of his own literary pursuits we hear nothing. Perhaps the Second Part of the *Principles*, which was lost afterwards in his travels, engaged him. In the end of July he wrote to Lord Percival[1] from Flaxley[2] on the Severn; and in August, September, October, and November he wrote from London, chiefly interested in

[1] Sir John became Lord Percival in that year.
[2] A place more than once visited by Berkeley.

reports about 'the rebels in Scotland,' and 'the forces under Lord Mar, which no doubt will languish and disperse in a little time. The Bishop of Bristol assured me the other day that the Court expect that the Duke of Orleans would, in case of need, supply them with forces against the Pretender.' Our next glimpse of him is in May, 1716, when he writes to Lord Percival that he is 'like soon to go to Ireland, the Prince of Wales having recommended him to the Lords Justices for the living of St. Paul's in Dublin.' This opening was soon closed, and the visit to Ireland was abandoned. A groundless suspicion of Jacobitism was not overcome by the interest of Caroline, Princess of Wales. In June, 1716, Charles Dering wrote from Dublin, that 'the Lords Justices have made a strong representation against him.' He had to look elsewhere for the immediate future.

We find him at Turin in November, 1716, with a fresh leave of absence for two years from his College. It seems that Ashe, Bishop of Clogher, had engaged him as travelling tutor to his son, a means not then uncommon for enabling young authors of moderate fortune to see new countries and mix with society. Addison had visited Italy in this way sixteen years before, and Adam Smith long afterwards travelled with the young Duke of Buccleuch. With young Ashe, Berkeley crossed Mont Cenis a second time. They reached Rome at the beginning of 1717. His *Journal in Italy* in that year, and occasional letters to Percival, Pope, and Arbuthnot, shew ardent interest in nature and art. With the widest views, 'this very great though singular sort of man descended into a minute detail, and begrudged neither pains nor expense for the means of information. He travelled through a great part of Sicily on foot; clambered over the mountains and crept into the caverns, to investigate its natural history and discover the causes of its volcanoes; and I have known him sit for hours in forges and foundries to inspect their

successive operations[1].' If the *Journal* had been transformed by his own hand into a book, his letter to Pope from Inarime shews that the book might have rivalled Addison's *Remarks on Parts of Italy* in grace of style and large human interest.

In the summer of 1720 we find the travellers at Florence, afterwards for some time at Lyons, and in London at the beginning of the next year. On the way home his metaphysical inspiration was revived. The 'Cause of Motion' had been proposed by the French Academy as the subject of a prize dissertation. The subject gave an opportunity for further unfolding his early thought. In the *Principles* and the *Dialogues* he had argued for the necessary dependence of matter, for its concrete substantial reality, upon living percipient mind. He would now shew its powerlessness as it is presented to us in sense. The material world, chiefly under the category of substance, inspired the *Principles*. The material world, under the category of cause or power, inspired the *De Motu*. This Latin Essay sums up the distinctive thought of Berkeley, as it appears in the authorship of his early life. *Moles evolvit et agitat mentes* might be taken as the formula of the materialism which he sought to dissolve. *Mens percipit et agitat molem significantem, cujus esse est percipi* expresses what Berkeley would substitute for the materialistic formula.

The end of the summer of 1721 found Berkeley still in London. England was in the social agitation and misery consequent upon the failure of the South Sea Company, a gigantic commercial speculation connected with British trade in America. A new inspiration took possession of him. He thought he saw in this catastrophe signs of a decline in public morals worse than that which followed the Restoration. 'Political corruption,' 'decay of religion,' 'growth of atheism,' were descriptive words used by the

[1] Bakewell's *Memoirs of the Court of Augustus*, vol. II. p. 177.

thoughtful. Berkeley's eager imagination was apt to exaggerate the evil. He became inspired by social idealism, and found vent for his fervour in *An Essay towards preventing the Ruin of Great Britain*, which, as well as the *De Motu*, made its appearance in 1721. This *Essay* is a significant factor in his career. It was the Cassandra wail of a sorrowful and indignant prophet, prepared to shake the dust from his feet, and to transfer his eye of hope to other regions, in which a nearer approach to Utopia might be realised. The true personality of the individual is unrealisable in selfish isolation. His favourite *non sibi, sed toti mundo* was henceforward more than ever the ruling maxim of his life.

II

Middle Life (1722–34).

In October, 1721, Berkeley was in Dublin. The register of the College shews that 'on November 14, 1721, Mr. Berkeley had the grace of the House for the Degree of Bachelor and Doctor of Divinity.' There is no ground for the report that he returned to Ireland at this time as Chaplain to the Duke of Grafton, the Lord Lieutenant[1]. But preferment in the Church seemed within his reach. 'I had no sooner set foot on shore,' he wrote to Percival in that October, 'than I heard that the Deanery of Dromore was vacant.' Percival used his influence with the Lord Lieutenant, and in February, 1722, Berkeley's patent was

[1] A letter in Berkeley's *Life and Letters*, p. 93, which led me to a different opinion, I have now reason to believe was not written by him, nor was it written in 1721. The research of Dr. Lorenz, confirmed by internal evidence, shews that it was written in October, 1684, before Berkeley the philosopher was born, and when the Duke of Ormond was Lord Lieutenant of Ireland. The writer was probably the Hon. and Rev. George Berkeley, a Prebendary of Westminster in 1687, who died in 1694. The wife of the 'pious Robert Nelson' was a daughter of Earl Berkeley, and this 'George' was her younger brother.

'passing the Seals for the Deanery of Dromore.' But the Bishop of Dromore claimed the patronage, and this led to a protracted and ineffectual lawsuit, which took Berkeley to London in the following winter, 'to see friends and inform himself of points of law,' and he tells that 'on the way he was nearly drowned in crossing to Holyhead[1].'

Berkeley's interest in church preferment was not personal. He saw in it only means to an end. In March, 1723, he surprised Lord Percival by announcing, in a letter from London, a project which it seems for some time had occupied his thoughts. 'It is now about ten months,' he says, 'since I have determined to spend the residue of my days in Bermuda, where I trust in Providence I may be the mean instrument of doing great good to mankind. Whatever happens, go I am resolved, if I live. Half a dozen of the most ingenious and agreeable men in our College are with me in this project, and since I came hither I have got together about a dozen Englishmen of quality, who intend to retire to those islands.' He then explains the project, opening a vision of Christian civilisation radiating from those fair islands of the West, whose idyllic bliss poets had sung, diffused over the New World, with its magnificent possibilities in the future history of mankind.

I find no further record of the origin of this bright vision. As it had become a practical determination 'ten months' before March, 1723, one is carried back to the first months after his return to Dublin and to the *Essay* that was called forth by the South Sea catastrophe. One may conjecture that despair of England and the Old World—'such as Europe breeds in her decay'—led him to look westward for the hopeful future of mankind, moved, perhaps, by the connexion of the catastrophe with America. His active imagination pictured a better Republic than Plato's, and a grander Utopia than More's,

[1] Percival MSS.

emanating from a College in the isles of which Waller had sung.

In the meantime a curious fortune unexpectedly favoured him. Swift's unhappy Vanessa, associated with Bury Street in 1713, had settled on her property at Marley Abbey near Dublin; and Swift had privately married Stella, as she confessed to Vanessa, who thereafter revoked the bequest of her fortune to Swift, and left it to be divided between Berkeley and Marshal, afterwards an Irish judge. Vanessa died in May, 1723. A few days after Berkeley wrote thus to Lord Percival: 'Here is something that will surprise your lordship as it doth me. Mrs. Hester Vanhomrigh, a lady to whom I was a perfect stranger, having never in the whole course of my life exchanged a word with her, died on Sunday. Yesterday her Will was opened, by which it appears that I am constituted executor, the advantage whereof is computed by those who understand her affairs to be worth £3000. . . . My Bermuda scheme is now stronger in my mind than ever; this providential event having made many things easy which were otherwise before.' Lord Percival in reply concludes that he would 'persist more than ever in that noble scheme, which may in some time exalt your name beyond that of St. Xavier and the most famous missionaries abroad.' But he warns him that, 'without the protection of Government,' he would encounter insurmountable difficulties. The Vanessa legacy, and the obstructions in the way of the Deanery of Dromore, were the subjects of a tedious correspondence with his friend and business factotum, 'Tom Prior,' in 1724 and the three following years. In the end, the debts of Vanessa absorbed most of the legacy. And as to the Deanery of Dromore, he tells Percival, on September 19, 1723: 'I despair of seeing it end to my advantage. The truth is, my fixed purpose of going to Bermuda sets me above soliciting anything with earnestness in this part

of the world. It can be of no use to me, but as it may enable me the better to prosecute that design; and it must be owned that the present possession of something in the Church would make my application for an establishment in those islands more considered.'

Nevertheless, he got a Deanery at last. In May, 1724, he informs Lord Percival from Trinity College: 'Yesterday I received my patent for the best Deanery in the kingdom, that of Derry. It is said to be worth £1500 per annum. But as I do not consider it with an eye to enriching myself, so I shall be perfectly contented if it facilitates and recommends my scheme of Bermuda, which I am in hopes will meet with a better reception if it comes from one possessed of so great a Deanery.' In September he is on his way, not to Derry, but to London, 'to raise funds and obtain a Charter for the Bermuda College from George the First,' fortified by a remarkable letter from Swift to Lord Carteret, the new Lord Lieutenant, who was then in Bath[1]. As Swift predicted in this letter, Berkeley's conquests spread far and fast in England, where he organised his resources during the four following years. Nothing shews more signally the magic of his personality than the story of his life in London in those years of negotiation and endeavour. The proposal met with a response wonderful in a generation represented by Walpole. The subscriptions soon reached five thousand pounds, and Walpole was among the subscribers. The Scriblerus Club, meeting at Lord Bathurst's, agreed to rally Berkeley, who was among them, on his Bermuda scheme. He asked to be heard in defence, and presented the case with such force of enthusiasm that the company 'were struck dumb, and after a pause simultaneously rose and asked leave to accompany him.' Bermuda for a time inspired London.

[1] For the letter, see Editor's Preface to the *Proposal for a College in Bermuda*. vol. IV. pp. 343–44.

Berkeley was not satisfied with this. He remembered what Lord Percival had said about failure without help from Government. Accordingly he obtained a Charter from George the First early in 1726, and after canvassing the House of Commons, secured a grant of £20,000, with only two dissentient votes, in May of that year. This was the beginning of his difficulties. Payment was indefinitely delayed, and he was kept negotiating; besides, with the help of Prior, he was unravelling legal perplexities in which the Vanessa legacy was involved. It was in these years that he was seen at the receptions of Caroline at Leicester Fields, when she was Princess of Wales, and afterwards at St. James's or at Kensington, when she became Queen in 1727; not, he says, because he loved Courts, but because he loved America. Clarke was still rector of St. James's, and Butler had not yet migrated to his parsonage at Stanhope; so their society was open to him. The Queen liked to listen to a philosophical discussion. Ten years before, as Princess of Wales, she had been a royal go-between in the famous correspondence between Clarke and Leibniz. And now, Berkeley being in London, he too was asked to her weekly reunions, when she loved to hear Clarke arguing with Berkeley, or Berkeley arguing with Hoadley. Also in 1726 Voltaire made his lengthened visit to England, a familiar figure in the circle of Pope's friends, attracted to the philosophy of Locke and Newton; and Voltaire mentions that he met 'the discoverer of the true theory of vision' during his stay in London.

From the summer of 1727 until the spring of 1728 there is no extant correspondence either with Percival or 'Tom Prior' to throw light on his movements. In February, 1728, he was still in London, but he 'hoped to set out for Dublin in March, and to America in May.' There is a mystery about this visit to Dublin. 'I propose to set out for Dublin about a month hence,' he writes to 'dear

sailed in September for Rhode Island, where the Dean intends to winter, and to purchase an estate, in order to settle a correspondence and trade between that island and Bermudas.' Berkeley was in his forty-fourth year, when, full of glowing visions of Christian Empire in the West, 'Time's noblest offspring,' he left England, on his way to Bermuda, with the promise of Sir Robert Walpole that he should receive the promised grant after he had made an investment. He bought land in America, but he never reached Bermuda.

Towards the end of January, in 1729, the little party, in the 'hired ship of 250 tons,' made their appearance in Narragansett Bay, on the western side of Rhode Island. 'Blundering about the ocean,' they had touched at Virginia on the way, whence a correspondent, sceptical of the enterprise, informs Lord Percival that the Dean 'had dined with the Governor, and visited our College,' but thinks that 'when the Dean comes to put his visionary scheme into practice, he will find it no better than a religious frenzy,' and that 'he is as much a Don Quixote in zeal as that renowned knight was in chivalry. I wish the good Dean may not find out at last that Waller really kidnapt him over to Bermuda, and that the project he has been drawn into may not prove in every point of it poetical.'

We have a picture of the landing at Newport, on a winter day early in 1729. 'Yesterday arrived here Dean Berkeley of Londonderry, in a pretty large ship. He is a gentleman of middle stature, of an agreeable, pleasant, and erect aspect. He was ushered into the town with a great number of gentlemen, to whom he behaved himself after a very complaisant manner. 'Tis said he proposes to tarry here with his family about three months[1].' Newport was then a flourishing town, nearly a century old, an emporium of American commerce, in those days the rival of Boston and New York. He was 'never more

[1] *New England Weekly Courier*, Feb. 3, 1729.

agreeably surprised,' he says, than 'at the size of the town and harbour.' Around him was some of the softest rural and grandest ocean scenery in the world, which had fresh charms even for one whose boyhood was spent in the valley of the Nore, who had lingered in the Bay of Naples, and wandered in Inarime and among the mountains of Sicily. He was seventy miles from Boston, and about as far from Newhaven and Yale College. A range of hills crosses the centre of the island, whence meadows slope to the rocky shore. The Gulf Stream tempers the surrounding sea. 'The people,' he tells Percival, 'are industrious; and though less orthodox have not less virtue, and I am sure they have more regularity, than those I left in Europe. They are indeed a strange medley of different persuasions.' The gentry retained the customs of the squires in England: tradition tells of a cheerful society: the fox chase, with hounds and horses, was a favourite recreation. The society, for so remote a region, was well informed. The family libraries and pictures which remain argue culture and refinement. Smibert, the artist of the missionary party, who had moved to Boston, soon found employment in America, and his pictures still adorn houses in Rhode Island[1].

The Dean and his young wife lived in Newport for some months after their arrival. Mr. Honeyman, a missionary of the English Society, had been placed there, in Trinity Church, in 1704. The church is still a conspicuous object from the harbour. Berkeley preached in it three days after his arrival, and occasionally afterwards. Notes of his sermons are included in this edition among his Miscellaneous Works.

In the summer of 1729 he moved from Newport to a quiet valley in the interior of the island, where he

[1] For valuable information about Rhode Island, reproduced in *Berkeley's Life and Correspondence* and here, I am indebted to Colonel Higginson, to whom I desire to make this tardy but grateful acknowledgement.

bought a farm, and built a house. In this island-home, named Whitehall, he lived for more than two years—years of domestic happiness, and of resumed study, much interrupted since he left Dublin in 1713. The house may still be seen, a little aside from the road that runs eastward from Newport, about three miles from the town. It is built of wood. The south-west room was probably the library. The ocean is seen in the distance, while orchards and groves offer the shade and silence which soothed the thinker in his recluse life. No invitations of the three companions of his voyage [1], who had migrated to Boston, could allure him from this retreat, where he diverted his anxieties about Bermuda by the thoughts which found expression in the dialogues of *Alciphron*, redolent of Rhode Island and the invigorating breezes of its ocean shore. Tradition tells that much of *Alciphron* was the issue of meditation in the open air, at a favourite retreat, beneath the Hanging Rocks, which commands an extensive view of the beach and the ocean; and the chair in which he sat in this alcove is still preserved with veneration.

While Berkeley loved domestic quiet at Whitehall [2] and the 'still air of delightful studies,' he mixed occasionally in the society of Newport. He found it not uncongenial, and soon after he was settled at Whitehall he led the way in forming a club, which held occasional meetings, the germ of the Redwood Library, still a useful Newport institution. His own house was a place of meeting for the New England missionaries.

Soon after his arrival in Rhode Island, Berkeley was visited by the Reverend Samuel Johnson, missionary at Stratford, an acute and independent thinker, one of the two contemporary representatives of philosophy in America.

[1] James, Dalton, and Smibert.

[2] Whitehall, having fallen into decay, has been lately restored by the pious efforts of Mrs. Livingston Mason, in concert with the Rev. Dr. E. E. Hale, and others. This good work was completed in the summer of 1900; and the house is now as nearly as possible in the state in which Berkeley left it.

WHITEHALL, BERKELEY'S RESIDENCE IN RHODE ISLAND

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The other was Jonathan Edwards, at that time Congregational minister at Northampton on the Connecticut river. They had both adopted a conception of the meaning and office of the material world in the economy of existence that was in many respects similar to Berkeley's [1]. It seems that Berkeley's book of *Principles* had before this fallen into Johnson's hands. He hastened to visit the author when he heard of his arrival. A succession of visits and a life-long correspondence followed. The 'non-existence of Matter,' interpreted as a whimsical and even insane paradox, was found by Johnson to mean the absence of unrealisable Substance behind the real material world that is presented to our senses, and of unrealisable Power in the successive sense-presented appearances of which alone we are percipient. He came to see the real existence of the things of sense in the constant order of the data of sense, through which we gain our knowledge of the existence of our fellow men, and of the omnipresent constant Providence of God; whose Ideas are the true archetypes of the visible world. He adopted and applied this conception with a lucidity and force which give him a high place among American thinkers.

All the while a cloud darkened the recluse life at Whitehall. In June, 1729, Berkeley explains to Percival the circumstances and secrecy of his departure from England:—

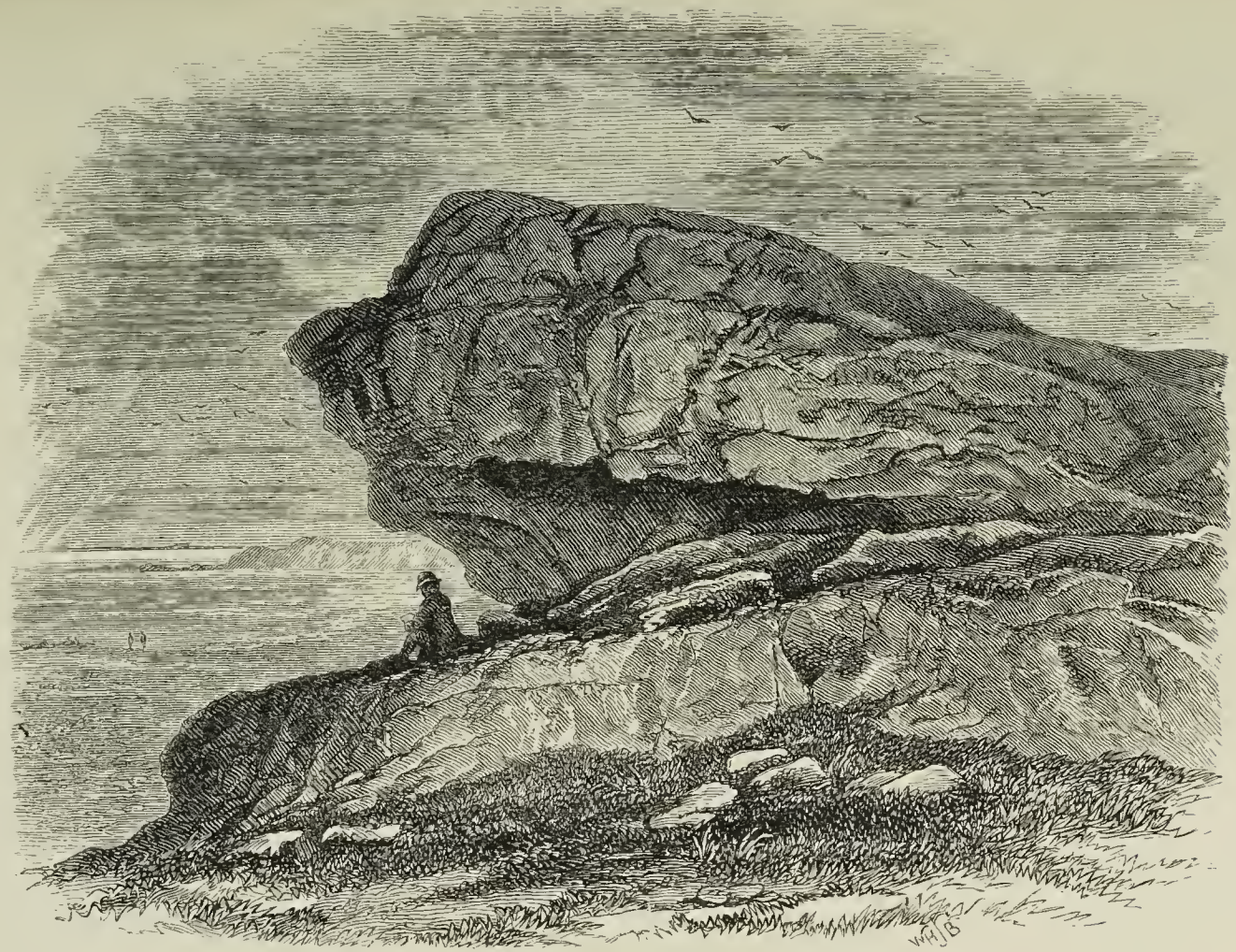
'Before I left England I was reduced to a difficult situation. Had I continued there, the report would have obtained (which I had found beginning to spread) that I had dropped the design, after it had cost me and my friends so much trouble and expense. On the other hand, if I had taken leave of my friends, even those who assisted and approved my undertaking would have condemned my coming abroad before the King's bounty was

[1] See vol. III, Appendix C.

received. This obliged me to come away in the private manner that I did, and to run the risque of a tedious winter voyage. Nothing less would have convinced the world that I was in earnest, after the report I knew was growing to the contrary.'

Months passed, and Walpole's promise was still unfulfilled. 'I wait here,' he tells Lord Percival in March, 1730, 'with all the anxiety that attends suspense, until I know what I can depend upon, or what course I am to take. On the one hand I have no notion that the Court would put what men call a *bite* upon a poor clergyman, who depended upon charters, grants, votes, and the like engagements. On the other hand, I see nothing done towards payment of the money.' Later on he writes—'As for the raillery of European wits, I should not mind it, if I saw my College go on and prosper; but I must own the disappointments I have met with in this particular have nearly touched me, not without affecting my health and spirits. If the founding a College for the spread of religion and learning in America had been a foolish project, it cannot be supposed the Court, the Ministers, and the Parliament would have given such public encouragement to it; and if, after all that encouragement, they who engaged to endow and protect it let it drop, the disappointment indeed may be to me, but the censure, I think, will light elsewhere.'

The suspense was at last ended. Gibson, the Bishop of London, pressed Walpole for a final answer. 'If,' he replied, 'you put this question to me as a Minister, I must, and can, assure you that the money shall most undoubtedly be paid, as soon as suits with public convenience; but if you ask me as a friend, whether Dean Berkeley should continue in America expecting the payment of twenty thousand pounds, I advise him by all means to return home to Europe, and to give up his present expectations.' It was thus that in 1731 the Prime Minister of England



BERKELEY'S ALCOVE, RHODE ISLAND

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crushed the project conceived ten years before, and to which the intervening period had, under his encouragement, been devoted by the projector with a singular enthusiasm.

A few months after this heavy blow, Berkeley, with his wife, and Henry their infant child, bade farewell to the island home. They sailed from Boston in the late autumn of 1731, and in the following February we find them in London. Thus ended the romantic episode of Rhode Island, with its ideal of Christian civilisation, which so moves the heart and touches the imagination in our retrospect of the eighteenth century. Of all who have ever landed on the American shore, none was ever moved by a purer and more self-sacrificing spirit. America still acknowledges that by Berkeley's visit on this mission it has been invested with the halo of an illustrious name, and associated with religious devotion to a magnificent ideal, even if it was sought to be realised by impracticable means. To reform the New World, and mankind at last, by a College on an island in the Atlantic, six hundred miles from America, the Indians whom it was intended to civilise being mostly in the interior of the continent, and none in Bermuda, was not unnaturally considered Quixotic; and that it was at first supported by the British Court and Parliament is a wonderful tribute to the persuasive genius of the projector. Perhaps he was too much influenced by Lord Percival's idea, that it could not be realised by private benevolence, without the intervention of the Crown. But the indirect influence of Berkeley's American inspiration is apparent in many ways in the intellectual and spiritual life of that great continent, during the last century and a half, especially by the impulse given to academical education. It is the testimony of an American author that, 'by methods different from those intended by Berkeley, and in ways more manifold than even he could have dreamed, he has since accomplished, and through all coming time, by a thousand ineffaceable

influences, he will continue to accomplish, some portion at least of the results which he had aimed at in the founding of his university. It is the old story over again; the tragedy of a Providence wiser than man's foresight; God giving the victory to His faithful servant even through the bitterness of overruling him and defeating him[1].' American Empire, as we now see it with its boundless beneficent influence, is at least an imperfect realisation of Berkeley's dream.

Berkeley's head quarters were in London, in Green Street, for more than two years after the return to England in the beginning of 1732. Extant correspondence with Lord Percival ends in Rhode Island, and our picture of the two years in London is faintly formed by letters to Prior and Johnson. These speak of ill-health, and breathe a less sanguine spirit. The brilliant social life of former visits was less attractive now, even if old friends had remained. But Swift had quitted England for ever, and Steele had followed Addison to the grave. Gay, the common friend of Berkeley and Pope, died soon after the return from Rhode Island, and Arbuthnot was approaching his end at Hampstead. Samuel Clarke had passed away when Berkeley was at Whitehall; but Secker now held the rectory of St. James's, and Butler was in studious retirement on the Wear; while Pope was at Twickenham, publishing his *Essay on Man*, receiving visits from Bolingbroke, or visiting Lord Bathurst at Cirencester Park. Queen Caroline, too, was holding her receptions at Kensington; but 'those who imagine (as you write),' he tells Prior in January, 1734, 'that I have been making my court here all this time, would never believe (what is most true) that I have not been at the Court or at the Minister's but once these seven years. The care of my health and

[1] *Three Men of Letters*, by Moses Coit Tyler (New York, 1895). He records some of the American academical and other institutions that are directly or indirectly, due to Berkeley

the love of retirement have prevailed over whatsoever ambition might have come to my share.' There is a hint of a visit to Oxford, at Commemoration in 1733, when his friend Secker received the honorary degree.

Soon after he had settled in London, the fruit of his studies in Rhode Island was given to the world in the Seven Dialogues of *Alciphron, or The Minute Philosopher*. Here the philosophical inspiration of his early years is directed to sustain faith in Divine Moral Order, and in the Christian Revelation. *Alciphron* is the longest, and in literary form perhaps the most finished of his works, unsurpassed in lively strokes of irony and satire. Yet if it is to be regarded as a philosophical justification of religion, as against modern agnosticism, one may incline to the judgment of Mr. Leslie Stephen, that it is 'the least admirable of all its author's admirable works.' As we have seen, the sect of free-thinkers was early the object of Berkeley's ridicule and sarcasm. They claimed for themselves wide intellectual vision, yet they were blind to the deep realities of the universe; they took exclusive credit for freedom of thought, although their thinking was confined within the narrow compass of our data in sense. The book of *Principles*, the *Dialogues*, and the *De Motu* of his early years, were designed to bring into clear light the absolute dependence of the world that is presented to our senses on Omnipresent Spirit; and the necessary subjection of all changes in our surroundings to the immediate agency or providence of God. Boasted 'free-thinking' was really a narrow atheism, so he believed, in which meaningless Matter usurped the place that belonged in reason to God, and he employed reason to disclose Omnipotent Intelligence in and behind the phenomena that are presented to the senses in impotent natural sequence.

The causes of the widespread moral corruption of the Old World, which had moved Berkeley so profoundly,

seem to have been pondered anew during his recluse life in Rhode Island. The decline of morals was explained by the deification of Matter: consequent life of sensuous pleasure accounted for decay of religion. That vice is hurtful was argued by free-thinkers like Mandeville to be a vulgar error, and a fallacious demonstration was offered of its utility. That virtue is intrinsically beautiful was taught by Shaftesbury; but Berkeley judged the abstract beauty, with which 'minute philosophers' were contented, unfit to move ordinary human beings to self-sacrificing action; for this involves devotion to a Perfect Person by whom goodness is finally distributed. Religion alone inspires the larger and higher life, in presenting distributive justice personified on the throne of the universe, instead of abstract virtue.

The turning-point in *Alciphron* is in man's vision of God. This is pressed in the Fourth Dialogue. The free-thinker asserts that 'the notion of a Deity, or some invisible power, is of all prejudices the most unconquerable; the most signal example of belief without reason for believing.' He demands proof—'such proof as every man of sense requires of a matter of fact. . . . Should a man ask, why I believe there is a king of Great Britain? I might answer, Because I had seen him. Or a king of Spain? Because I had seen those who saw him. But as for this King of kings, I neither saw Him myself, nor any one else that ever did see Him.' To which Euphranor replies, 'What if it should appear that God really speaks to man; would this content you? What if it shall appear plainly that God speaks to men by the intervention and use of arbitrary, outward, sensible signs, having no resemblance or necessary connexion with the things they stand for and suggest; if it shall appear that, by innumerable combinations of these signs, an endless variety of things is discovered and made known to us; and that we are thereby instructed or informed in their different natures; that we are taught

and admonished what to shun and what to pursue; and are directed how to regulate our motions, and how to act with respect to things distant from us, as well in time as place: will this content you?' Euphranor accordingly proceeds to shew that Visible Nature is a Language, in which the Universal Power that is continually at work is speaking to us all, in a way similar to that in which our fellow men speak to us; so that we have as much (even more) reason to believe in the existence of the Universal Person who is the Speaker, as we have to believe in the existence of persons around us; who become known to us, when they too employ sense-symbols, in the words and actions by which we discover that we are not alone in the universe. For men are really living spirits: their *bodies* are only the sign of their spiritual personality. And it is so with God, who is also revealed in the visible world as a Spirit. 'In a strict sense,' says Euphranor, 'I do not see Alciphron, but only such visible signs and tokens as suggest and infer the being of that invisible thinking principle or soul. Even so, in the self-same manner, it seems to me that, though I cannot with eyes of flesh behold the invisible God, yet I do, in the strictest sense, behold and perceive, by all my senses, such signs and tokens . . . as suggest, indicate, and demonstrate an invisible God as certainly, and with the same evidence, at least, as any other signs, perceived by sense, do suggest to me the existence of *your* soul, spirit, or thinking principle; which I am convinced of only by a few signs or effects, and the motions of one small organised body; whereas I do, at all times, and in all places, perceive sensible signs which evince the being of God.' In short, God is the living Soul of the Universe; as you and I are the living souls that keep our bodies and their organs in significant motion. We can interpret the character of God in the history of the universe, even as we can interpret the

character of our neighbour by observing his words and outward actions.

This overwhelmed Alciphron. 'You stare to find that God is not far from any one of us, and that in Him we live and move and have our being,' rejoins Euphranor. 'You who, in the beginning of this conference, thought it strange that God should leave Himself without a witness, do now think it strange the witness should be so full and clear.' 'I must own I do,' was the reply. 'I never imagined it could be pretended that we saw God with our fleshly eyes, as plain as we see any human person whatsoever, and that He daily speaks to our senses in a manifest and clear dialect.'

Although this reasoning satisfied Alciphron, others may think it inconclusive. How one is able to discover the existence of other persons, and even the meaning of finite personality, are themselves questions full of speculative difficulty. But, waiving this, the analogy between the relation of a human spirit to its body, and that of the Omnipresent and Omnipotent Spirit to the Universe of things and persons, fails in several respects. God is supposed to be continually creating the world by constant and continuous Providence, and His Omniscience is supposed to comprehend all its concrete relations: a man's body is not absolutely dependent on the man's own power and providence; and even his scientific knowledge of it, in itself and in its relations, is scanty and imperfect, as his power over it is limited and conditioned. Then the little that a man gradually learns of what is going on in the surrounding universe is dependent on his senses: Omniscience comprehends Immensity and Eternity (so we suppose) in a single intuition. Our bodies, moreover, are visible things: the universe, this organism of God, is crowded with *persons*, to whom there is nothing corresponding within the organism which reveals one man to another.

But this is not all. After Euphranor has found that the Universal Power is Universal Spirit, this is still an in-

adequate God; for what we want to know is what *sort* of Spirit God is. Is God omnipotent or of limited power, regarded ethically, fair or unfair in His treatment of persons; good or evil, according to the highest yet attained conception of goodness; a God of love, or a devil omnipotent? I infer the *character* of my neighbour from his words and actions, patent to sense in the gradual outward evolution of his life. I am asked to infer the *character* of the Omnipresent Spirit from *His* words and actions, manifested in the universe of things and persons. But we must not attribute to the Cause more than it reveals of itself in its effects. God and men alike are known by the effects they produce. The Universal Power is, on this condition, righteous, fair, and loving to the degree in which those conceptions are implied in His visible embodiment: to affirm more or other than this, on the basis of analogy *alone*, is either to indulge in baseless conjecture, or to submit blindly to dogma and authority.

Now the universe, as far as it comes within the range of human experience on this planet, is full of suffering and moral disorder. The 'religious hypothesis' of a perfectly righteous and benevolent God is here offered to account for the appearances which the universe presents to us. But do these signify exact distributive justice? Is not visible nature apparently cruel and unrelenting? If we infer cruelty in the character of a man, because his bodily actions cause undeserved suffering, must we not, by this analogy, infer in like manner regarding the character of the Supreme Spirit, manifested in the progressive evolution of the universal organism?

We find it impossible to determine with absolute certainty the character even of our fellow men, from their imperfectly interpreted words and actions, so that each man is more or less a mystery to his fellows. The mystery deepens when we try to read the character of animals, —to interpret the motives which determine the overt acts

of dogs or horses. And if we were able to communicate by visible signs with the inhabitants of other planets, with how much greater difficulty should we draw conclusions from their visible acts regarding *their* character? But if this is so when we use the data of sense for reading the character of finite persons, how infinite must be the difficulty of reading the character of the Eternal Spirit, in and through the gradual evolution of the universe of things and persons, which in this reasoning is supposed to be His body; and the history of that universe the facts of His biography, in and by which He is eternally revealing Himself! For we know nothing about the unbeginning and unending. The universe of persons is assumed to have no *end*; and I know not why its evolution must be supposed to have had a *beginning*, or that there ever was a time in which God was unmanifested, to finite persons.

Shall we in these circumstances turn with Euphranor, in the Fifth and Sixth Dialogues, to professed revelation of the character of the Universal Mind presented in miraculous revelation, by inspired prophets and apostles, who are brought forward as authorities able to speak infallibly to the *character* of God? If the whole course of nature, or endless evolution of events, is the Divine Spirit revealed in omnipresent activity, what room is there for any other less regular revelation? The universe of common experience, it is implied by Berkeley, is essentially miraculous, and therefore absolutely perfect. Is it consistent with fairness, and benevolence, and love of goodness in all moral agents for its own sake, that the Christian revelation should have been so long delayed, and be still so incompletely made known? Is not the existence of wicked persons on this or any other planet, wicked men or devils, a dark spot in the visible life of God? Does not perfect goodness in God mean restoration of goodness in men, for its own sake, apart from their merit; and must not Omnipotent Goodness, infinitely opposite to all evil, either

convert to goodness all beings in the universe who have made themselves bad, or else relieve the universe of their perpetual presence in ever-increasing wickedness?

Sceptical criticism of this sort has found expression in the searching minute philosophy of a later day than Berkeley's and Alciphron's; as in David Hume and Voltaire, and in the agnosticism of the nineteenth century. Was not Euphranor too ready to yield to the demand for a visible God, whose character had accordingly to be determined by what appears in nature and man, under the conditions of our limited and contingent experience? Do we not need to look below data of sensuous experience, and among the presuppositions which must consciously or unconsciously be taken for granted in all man's dealings with the environment in which he finds himself, for the root of *trustworthy* experience? On merely physical reasoning, like that of Euphranor, the righteous love of God is an unwarranted inference, and it even seems to be contradicted by visible facts presented in the history of the world. But if Omnipotent Goodness must *a priori* be attributed to the Universal Mind, as an indispensable condition for man's having reliable intercourse of any sort with nature; if this is the primary postulate necessary to the existence of truth of any kind—then the 'religious hypothesis' that God is Good, according to the highest conception of goodness, is no groundless fancy, but the fundamental faith-venture in which man has to live. It *must* stand in reason; unless it can be *demonstrated* that the mixture of good and evil which the universe presents, necessarily contradicts this fundamental presupposition: and if so, man is lost in pessimistic Pyrrhonism, and can assert nothing about anything[1].

The religious altruism, however inadequate, which

[1] The thought implied in this paragraph is pursued in my *Philosophy of Theism*, in which the ethical perfection of the Universal Mind is taken as the fundamental postulate in all human experience. If the Universal Mind is not ethically perfect, the universe (including our spiritual constitution) is radically untrustworthy.

Berkeley offered in *Alciphron* made some noise at the time of its appearance, although its theistic argument was too subtle to be popular. The conception of the visible world as Divine Visual Language was 'received with ridicule by those who make ridicule the test of truth,' although it has made way since. 'I have not seen Dean Berkeley,' Gay the poet writes to Swift in the May following the Dean's return, and very soon after the appearance of *Alciphron*, 'but I have been reading his book, and like many parts of it; but in general think with you that it is too speculative.' Warburton, with admiration for Berkeley, cannot comprehend his philosophy, and Hoadley shewed a less friendly spirit. *A Letter from a Country Clergyman*, attributed to Lord Hervey, the 'Sporus' of Pope, was one of several ephemeral attacks which the *Minute Philosopher* encountered in the year after its appearance. Three other critics, more worthy of consideration, are mentioned in one of Berkeley's letters from London to his American friend Johnson at Stratford: 'As to the Bishop of Cork's book, and the other book you allude to, the author of which is one Baxter, they are both very little considered here; for which reason I have taken no public notice of them. To answer objections already answered, and repeat the same things, is a needless as well as disagreeable task. Nor should I have taken notice of that Letter about Vision, had it not been printed in a newspaper, which gave it course, and spread it through the kingdom. Besides, the theory of Vision I found was somewhat obscure to most people; for which reason I was not displeased at an opportunity to explain it[1].' The explanation was given in *The Theory of Visual Language Vindicated*, in January, 1733, as a supplement to *Alciphron*. Its blot is a tone of polemical bitterness directed against Shaftesbury[2].

[1] *Life and Letters of Berkeley*, p. 222.

[2] The third Earl of Shaftesbury, the pupil of Locke, and author

Although Berkeley 'took no public notice' of 'the Bishop of Cork's book[1]' it touched a great question, which periodically has awakened controversy, and been the occasion of mutual misunderstanding among the controversialists in past ages. 'Is God knowable by man; or must religion be devotion to an object that is unknowable?' In one of his first letters to Lord Percival, as we saw, Berkeley animadverted on a sermon by the Archbishop of Dublin, which seemed to deny that there was goodness, or understanding God, any more than feet or hands. An opinion somewhat similar had been attributed to Bishop Browne, in his answer to Toland, and afterwards in 1728, in his *Procedure and Limits of Human Understanding*.

This touched to the quick Berkeley's ultimate conception of the universe, as realisable only in, and therefore necessarily dependent on, living mind. We are reminded of the famous analogy of Spinoza[2]. If the omnipresent and omnipotent Mind, on which Euphranor rested, can be called 'mind' only metaphorically, and can be called 'good' only when the term is used without human meaning, it may seem to be a matter of indifference whether we have unknowable Matter or unknowable Mind at the root of things and persons. Both are empty words. The Power universally at work is equally unintelligible, equally unfit to be the object of worship in the final venture of faith, whether we use the term Matter or the term Mind.

of the *Characteristics*. In addition to the well-known biography by Dr. Fowler, the present eminent Vice-Chancellor of Oxford, Shaftesbury has been interpreted in two other lately published works—a *Life* by Benjamin Rand, Ph.D. (1900), and an edition of the *Characteristics*, with an Introduction and Notes, by John M. Robertson (1900).

[1] The title of this book is—*Things Divine and Supernatural conceived by Analogy with Things Natural and Human*, by the Author of *The Procedure, Extent and Limits of the Human Understanding*. The *Divine Analogy* appeared in 1733, and the *Procedure* in 1728.

[2] Spinoza argues that what is *called* 'understanding' and 'will' in God, has no more in common with human understanding and will than the dog-star in the heavens has with the animal we call a dog. See Spinoza's *Ethica*, I. 17, *Scholium*.

The universe is neither explained nor sustained by a 'mind' that is mind only metaphorically. To call this 'God' is to console us with an empty abstraction. The minutest philosopher is ready to grant with Alciphron that 'there is a God in this indefinite sense'; since nothing can be inferred from such an account of God about conduct or religion.

The Bishop of Cork replied to the strictures of Euphranor in the *Minute Philosopher*. He qualified and explained his former utterances in some two hundred dull pages of his *Divine Analogy*, which hardly touch the root of the matter. The question at issue is the one which underlies modern agnosticism. It was raised again in Britain in the nineteenth century, with deeper insight, by Sir William Hamilton; followed by Dean Mansel, in controversy with F. D. Maurice, at the point of view of Archbishop King and Bishop Browne, in philosophical vindication of the mysteries of Christian faith; by Mr. Herbert Spencer and by Huxley in a minute philosophy that has been deepened by Hume's criticism of the rationale of theism in Berkeley [1].

Andrew Baxter's *Inquiry into the Nature of the Human Soul*, referred to in Berkeley's letter to Johnson, appeared in 1733. It has a chapter on 'Dean Berkeley's Scheme against the existence of Matter and a Material World,' which is worthy of mention because it is the earliest elaborate criticism of the New Principle, although it had then been before the world for more than twenty years. The title of the chapter shews Baxter's imperfect comprehension of the proposition which he attempts to refute. It suggests

[1] The question of the knowableness of God, or Omnipotent Moral Perfection in the concrete, enters largely into recent philosophical and theological discussion in Britain. Calderwood, in his *Philosophy of the Infinite* (1854), was one of the earliest, and not the least acute, of Hamilton's critics in this matter. The subject is lucidly treated by Professor Andrew Seth (Pringle-Pattison) in his *Lectures on Theism* (1897) and in a supplement to Calderwood's *Life* (1900). So also Huxley's *David Hume*, and Professor Iverach's *Is God Knowable?*

that Berkeley argued for the non-existence of the things we see and touch, instead of for their necessary dependence on, or subordination to, realising percipient Mind, so far as they are concrete realities. Baxter, moreover, was a Scot; and his criticism is interesting as a foretaste of the protracted discussion of the 'ideal theory' by Reid and his friends, and later on by Hamilton. But Baxter's book was not the first sign of Berkeley's influence in Scotland. We are told by Dugald Stewart, that 'the novelty of Berkeley's paradox attracted very powerfully the attention of a set of young men who were then prosecuting their studies at Edinburgh, who formed themselves into a Society for the express purpose of soliciting from him an explanation of some parts of his theory which seemed to them obscurely or equivocally expressed. To this correspondence the amiable and excellent prelate seems to have given every encouragement; and I have been told on the best authority that he was accustomed to say that his reasoning had been nowhere better understood than by this club of young Scotsmen[1].' Thus, and afterwards through Hume and Reid, Berkeley is at the root of philosophy in Scotland.

The two years of indifferent health and authorship in London sum up what may be called the American period of Berkeley's life. Early in 1734 letters to Prior open a new vista in his history. He was nominated to the bishopric of Cloyne in the south of Ireland, and we have now to follow him to the remote region which was his home for eighteen years. The interest of the philosophic Queen, and perhaps some compensation for the Bermuda disappointment, may explain the appearance of the metaphysical and social idealist in the place where he shone as a star of the first magnitude in the Irish Church of the eighteenth century.

[1] Stewart's *Works*, vol. I. pp. 350–1.

III

Later Years (1734–53).

In May, 1734, Berkeley was consecrated as Bishop of Cloyne, in St. Paul's Church, Dublin. Except occasional visits, he had been absent from Ireland for more than twenty years. He returned to spend eighteen years of almost unbroken seclusion in his remote diocese. It suited a growing inclination to a recluse, meditative life, which had been encouraged by circumstances in Rhode Island. The eastern and northern part in the county of Cork formed his diocese, bounded on the west by Cork harbour, and on the east by the beautiful Blackwater and the mountains of Waterford; the sea, which was its southern boundary, approached within two miles of the episcopal residence in the village of Cloyne.

As soon as he was settled, he resumed study 'with unabated attention,' but still with indifferent health. Travelling had become irksome to him, and at Cloyne he was almost as much removed as he had been in Rhode Island from the thinking world. Cork took the place of Newport; but Cork was twenty miles from Cloyne, while Newport was only three miles from Whitehall. His episcopal neighbour at Cork was Bishop Browne, the critic of *Alciphron*. Isaac Gervais, afterwards Dean of Tuam, often enlivened the 'manse-house' at Cloyne by his wit and intercourse with the great world. Secker, the Bishop of Bristol, and Benson, the Bishop of Gloucester, now and then exchanged letters with him, and correspondence was kept up as of old with Prior at Dublin and Johnson at Stratford. But there is no trace of intercourse with Swift, who was wearing out an unhappy old age, or with Pope, almost the only survivor of the brilliant society of other years. We are told, indeed, that the beauty of Cloyne

was so described to the bard of Twickenham, by the pen which in former days had described Ischia, that Pope was almost moved to visit it. And a letter from Secker in February, 1735[1], contains this scrap: 'Your friend Mr. Pope is publishing small poems every now and then, full of much wit and not a little keenness[2].' 'Our common friend, Dr. Butler,' he adds, 'hath almost completed a set of speculations upon the credibility of religion from its analogy to the constitution and course of nature, which I believe in due time you will read with pleasure.' Butler's *Analogy* appeared in the following year. But I have found no remains of correspondence between Berkeley and their 'common friend'; the two most illustrious religious thinkers of the Anglican communion.

When he left London in 1734 Berkeley was on the eve of what sounded like a mathematical controversy, although it was in his intention metaphysical, and was suggested by the Seventh Dialogue in *Alciphron*. In one of his letters to Prior, early in that year, he told him that though he 'could not read, owing to ill health,' yet his thought was as distinct as ever, and that for amusement 'he passed his early hours in thinking of certain mathematical matters which may possibly produce something[3].' This turned, it seems, upon a form of scepticism among contemporary mathematicians, occasioned by the presence of mysteries of religion. The *Analyst* was the issue. It was followed

[1] Berkeley MSS. possessed by Archdeacon Rose.

[2] Pope's poetic tribute to Berkeley belongs to this period—

> 'Even in a bishop I can spy desert;
> Secker is decent; Rundle has a heart:
> Manners with candour are to Benson given,
> To Berkeley—every virtue under heaven.'
>
> *Epilogue to the Satires.*

Also his satirical tribute to the critics of Berkeley—

> 'Truth's sacred fort th' exploded laugh shall win;
> And Coxcombs vanquish Berkeley with a grin.'
>
> *Essay on Satire*, Part II.

[3] Berkeley's *Life and Letters*, p. 210.

by a controversy in which some of the most eminent mathematicians took part. *Mathematica exeunt in mysteria* might have been the motto of the *Analyst*. The assumptions in mathematics, it is argued, are as mysterious as those of theologians and metaphysicians. Mathematicians cannot translate into perfectly intelligible thought their own doctrines in fluxions. If man's knowledge of God is rooted in mystery, so too is mathematical analysis. Pure science at last loses itself in propositions which usefully regulate action, but which cannot be comprehended. This is the drift of the argument in the *Analyst*; but perhaps Berkeley's inclination to extreme conclusions, and to what is verbally paradoxical, led him into doubtful positions in the controversy to which the *Analyst* gave rise. Instead of ultimate imperfect comprehensibility, he seems to attribute absolute contradiction to the Newtonian fluxions. Baxter, in his *Inquiry*, had asserted that things in Berkeley's book of *Principles* forced the author 'to suspect that even mathematics may not be very sound knowledge at the bottom.' The metaphysical argument of the *Analyst* was obscured in a cloud of mathematics.

The social condition of Ireland attracted Berkeley almost as soon as he was settled in Cloyne. He was surrounded by a large native Irish population and a small group of English colonists. The natives, long governed in the interest of the stranger, had never learned to exert and govern themselves. The self-reliance which Berkeley preached fifteen years before, as a mean for 'preventing the ruin of Great Britain,' was more wanting in Ireland, where the simplest maxims of social economy were neglected. It was a state of things fitted to move one who was too independent to permit his aspirations to be confined to the ordinary routine of the Irish episcopate, and who could not forget the favourite moral maxim of his life.

The social chaos of Ireland was the occasion of what

to some may be the most interesting of Berkeley's writings. His thoughts found vent characteristically in a series of penetrating practical queries. The First Part of the *Querist* appeared in 1735, anonymously, edited by Dr. Madden of Dublin, who along with Prior had lately founded a Society for promoting industrial arts in Ireland. The Second and Third Parts were published in the two following years. *A Discourse to Magistrates occasioned by the Enormous Licence and Irreligion of the Times*, which appeared in 1736, was another endeavour, with like philanthropic intention. And the only important break in his secluded life at Cloyne, in eighteen years of residence, was when he went for some months to Dublin in 1737, to render social service to Ireland in the Irish House of Lords.

His metaphysic, at first encountered by ridicule, was now beginning to receive more serious treatment. A Scotsman had already recognised it. In 1739 another and more famous Scotsman, David Hume, refers thus to Berkeley in one of the opening sections of his *Treatise of Human Nature*: 'A very material question has been started concerning abstract or general ideas—whether they be general or particular in the mind's conception of them. A great philosopher, Dr. Berkeley, has disputed the received opinion in this particular, and has asserted that all general ideas are nothing but particular ones, annexed to a certain term which gives them a more extensive signification, and makes them recall upon occasion other individuals which are similar to them. I look upon this to be one of the greatest and most valuable discoveries that has been made of late years in the republic of letters.' It does not appear that Berkeley heard of Hume.

A curious interest began to engage him about this time. The years following 1739 were years of suffering in the

Irish diocese. It was a time of famine followed by widespread disease. His correspondence is full of allusions to this. It had consequences of lasting importance. Surrounded by disease, he pondered remedies. Experience in Rhode Island and among American Indians suggested the healing properties of tar. Further experiments in tar, combined with meditation and much curious reading, deepened and expanded his metaphysical philosophy. Tar seemed to grow under his experiments, and in his thoughts, into a Panacea for giving health to the organism on which living mind in man is meanwhile dependent. This natural dependence of health upon tar introduced thoughts of the interdependence of all things, and then of the *immediate* dependence of all in nature upon Omnipresent and Omnipotent Mind. The living Mind that underlies the phenomena of the universe began to be conceived under a new light. Since his return to the life of thought in Rhode Island, he had been immersed in Platonic and Neoplatonic literature, and in books of mystical Divinity, encouraged perhaps by the mystical disposition attributed to his wife. An eccentric ingenuity connected the scientific experiments. and prescriptions with the Idealism of Plato and Plotinus. The natural law according to which tar-water was universally restorative set his mind to work about the immanence of living Mind. He mused about a medicine thus universally beneficial, and the thought occurred that it must be naturally charged with 'pure invisible fire, the most subtle and elastic of bodies, and the vital element in the universe'; and water might be the natural cause which enables this elementary fire to be drawn out of tar and transferred to vegetable and animal organisms. But the vital fire could be only a natural cause; which in truth is no efficient cause at all, but only a sign of divine efficiency transmitted through the world of sense: the true cause of this and all other natural effects must be the immanent Mind or Reason in which

we all participate; for in God we live and move and have our being.

It is thus that Berkeley's thought culminates in *Siris*, that *Chain of Philosophical Reflexions and Inquiries concerning the Virtues of Tar-water, and divers other subjects connected together and arising one from another*, which appeared in 1744. This little book made more noise at the time of its appearance than any of his books; but not because of its philosophy, which was lost in its medicinal promise to mankind of immunity from disease. Yet it was Berkeley's last attempt to express his ultimate conception of the universe in its human and divine relations. When *Siris* is compared with the book of *Principles*, the immense difference in tone and manner of thought shews the change wrought in the intervening years. The sanguine argumentative gladiatorship of the *Principles* is exchanged for pensive speculation, which acknowledges the weakness of human understanding, when it is face to face with the Immensities and Eternities. Compare the opening sections of the Introduction to the *Principles* with the closing sections of *Siris*. The contingent data of our experience are now felt to be insufficient, and there is a more or less conscious grounding of the Whole in the eternal and immutable Ideas of Reason. 'Strictly, the sense knows nothing. We perceive, indeed, sounds by hearing and characters by sight. But we are not therefore said to understand them. . . . Sense and experience acquaint us with the course and analogy of appearances and natural effects: thought, reason, intellect, introduce us into the knowledge of their causes. . . . The principles of science are neither objects of sense nor imagination: intellect and reason are alone the sure guides to truth.' So the shifting basis of the earlier thought is found to need support in the intellectual and moral faith that must be involved in all reasonable human intercourse with the phenomena presented in the universe.

The inadequate thought of God, as only a Spirit or Person supreme among the spirits or persons, in and through whom the material world is realised, a thought which pervades *Alciphron*, makes way in *Siris* for the thought of God as the infinite omnipresent Ground, or final sustaining Power, immanent in Nature and Man, to which Berkeley had become accustomed in Neoplatonic and Alexandrian metaphysics. 'Comprehending God and the creatures in One general notion, we may say that all things together (God and the universe of Space and Time) make One Universe, or τὸ Πᾶν. But if we should say that all things make One God, this would be an erroneous notion of God; but would not amount to atheism, as long as Mind or Intellect was admitted to be τὸ ἡγεμονικόν, or the governing part. . . . It will not seem just to fix the imputation of atheism upon those philosophers who hold the doctrine of τὸ Ἕν.' It is thus that he now regards God. Metaphysics and theology are accordingly one.

No attempt is made in *Siris* to articulate the universe in the light of unifying Mind or Reason. And we are still apt to ask what the truth and goodness at the heart of all really mean; seeing that, as conceived in human minds, they vary in the gradual evolution of intellect and conscience in men. *Omnia exeunt in mysteria* is the tone of *Siris* at the end. The universe of reality is too much for our articulate intellectual digestion: it must be left for omniscience; it transcends finite intelligence and the *via media* of human understanding. Man must be satisfied to pass life, in the infinitesimal interval between birth and death, as a faith-venture, which he may convert into a growing insight, as the generations roll on, but which can never be converted into complete knowledge. 'In this state we must be satisfied to make the best of those glimpses within our reach. It is Plato's remark in his *Theætetus*, that while we sit still we are never the wiser; but going into the river, and moving up and down,

is the way to discover its depths and shallows. If we exercise and bestir ourselves, we may even here discover something. The eye by long use comes to see even in the darkest cavern; and there is no subject so obscure but we may discern some glimpse of truth by long poring on it. Truth is the cry of all, but the game of a few. Certainly where it is the chief passion it doth not give way to vulgar cares and views; nor is it contented with a little ardour in the early time of life: a time perhaps to pursue, but not so fit to weigh and revise. He that would make a real progress in knowledge must dedicate his age as well as his youth, the later growth as well as the first-fruits, at the altar of Truth.' Such was Berkeley, and such were his last words in philosophy. They may suggest the attitude of Bacon when, at a different view-point, he disclaims exhaustive system: 'I have made a beginning of the work: the fortune of the human race will give the issue. For the matter in hand is no mere felicity of speculation, but the real business and fortunes of the human race[1].'

While Berkeley's central thought throughout his life is concerned with God as the one omnipresent and omnipotent Providential Agent in the universe, he says little about the other final question, of more exclusively human interest, which concerns the destiny of men. That men are born into a universe which, as the visible expression of Moral Providence, must be scientifically and ethically trustworthy; certain not to put man to confusion intellectually or morally, seeing that it could not otherwise be trusted for such in our ultimate venture of faith—this is one thing. That all persons born into it are certain to continue living self-consciously for ever, is another thing. This is not obviously implied in the former presupposition, whether or not it can be deduced

[1] Bacon's *Novum Organum*. Distributio Operis.

from it, or else discovered by other means. Although man's environment is essentially Divine, and wholly in its smallest details Providential, may not his body, in its living organisation from physical birth until physical death, be the measure of the continuance of his self-conscious personality? Is each man's immortal existence, like God's, indispensable?

Doubt about the destiny of men after they die is, at the end of the nineteenth century, probably more prevalent than doubt about the underlying Providence of God, and His constant creative activity; more perhaps than it was in the days of Toland, and Collins, and Tindal. Future life had been made so familiar to the imagination by the early and mediaeval Church, and afterwards by the Puritans, as in Milton, Bunyan, and Jonathan Edwards, that it then seemed to the religious mind more real than anything that is seen and touched. The habit wholly formed by natural science is apt to dissipate this and to make a human life lived under conditions wholly strange to its 'minute philosophy' appear illusory.

A section in the book of *Principles*[1] in which the common argument for the 'natural immortality' of the human soul is reproduced, strengthened by his new conception of what the reality of body means, is Berkeley's metaphysical contribution for determining between the awful alternatives of annihilation or continued self-conscious life after physical death. The subject is touched, in a less recondite way, in two of his papers in the *Guardian*, and in the *Discourse* delivered in Trinity College Chapel in 1708, in which a revelation of the immortality of men is presented as the special gospel of Jesus Christ. To argue, as Berkeley does in the *Principles*, that men cannot be annihilated at death, because they are spiritual substances having powers independent of the sequences of nature, implies assumptions regarding finite persons which are

[1] Section 141.

open to criticism. The justification in reason for our venture of faith that Omnipotent Goodness is at the heart of the universe is—that without this presupposition we can have no reasonable intercourse, scientific or otherwise, with the world of things and persons in which we find ourselves; for reason and will are then alike paralysed by universal distrust. But it can hardly be maintained *a priori* that men, or other spiritual beings in the universe, are equally with God indispensable to its natural order; so that when they have once entered on conscious existence they must *always* continue to exist consciously. Is not the philosophical justification of man's hope of endless life ethical rather than metaphysical; founded on that faith in the justice and goodness of the Universal Mind which has to be taken for granted in every attempt to interpret experience, with its mixture of good and evil, in this evanescent embodied life? Can a life such as this is be *all* for men, in a universe that, because it is essentially Divine, must operate towards the extinction of the wickedness which now makes it a mystery of Omnipotent Goodness?

A cheerful optimism appears in Berkeley's habit of thought about death, as we have it in his essays in the *Guardian*: a sanguine apprehension of a present preponderance of good, and consequent anticipation of greater good after death; unlike those whose pessimistic temperament induces a lurid picture of eternal moral disorder. But his otherwise active imagination seldom makes philosophy a meditation upon death. He does not seem to have exercised himself in the way those do who find in the prospect of being in the twenty-first century as they were in the first, what makes them appalled that they have ever come at all into transitory percipient life; or as those others who recoil from an unbodied life after physical death, as infinitely more appalling than the thought of being transported *in this body* into another planet, or

even to a material world outside our solar system. In one of his letters to Johnson[1] he does approach the unbodied life, and in a characteristic way:—

'I see no difficulty in conceiving a change of state, such as is vulgarly called *death*, as well without as with material substance. It is sufficient for that purpose that we allow sensible bodies, i.e. such as are immediately perceived by sight and touch; the existence of which I am so far from questioning, as philosophers are used to do, that I establish it, I think, upon evident principles. Now it seems very easy to conceive the *soul* to exist in a separate state (i.e. divested from those limits and laws of motion and perception with which she is embarrassed here) and to exercise herself on new ideas, without the intervention of these tangible things we call *bodies*. It is even very possible to apprehend how the soul may have ideas of colour without an eye, or of sounds without an ear[2].'

But while we may thus be supposed to have all our present sensuous experience in an unbodied state, this does not enable one to conceive how unbodied persons can communicate with one another in the absence of *all* sense signs; whether of the sort derived from our present senses, or from other senses of whose data we can in this life have no imagination.

Berkeley's tar-water enthusiasm lasted throughout the rest of his life, and found vent in letters and pamphlets in support of his Panacea, from 1744 till 1752. Notwithstanding this, he was not forgetful of other interests—ecclesiastical, and the social ones which he included in his large meaning of 'ecclesiastical.' The Rising under Charles Edward in 1745 was the occasion of a *Letter to the Roman Catholics of Cloyne*, characteristically humane

[1] See 'Editor's Preface to Alciphron.'
[2] Compare Essay II in the *Guardian* with this.

and liberal. It was followed in 1749 by an *Exhortation to the Roman Catholic Clergy of Ireland* in a similar spirit; and this unwonted courtesy of an Irish Protestant bishop was received by those to whom it was addressed in a corresponding temper.

It is difficult to determine Berkeley's relation to rival schools or parties in Church and State. His disposition was too singular and independent for a partisan. Some of his early writings, as we have seen, were suspected of high Tory and Jacobite leanings; but his arguments in the suspected *Discourse* were such as ordinary Tories and Jacobites failed to understand, and the tenor of his words and actions was in the best sense liberal. In religious thought *Siris* might place him among latitudinarians; perhaps in affinity with the Cambridge Platonists. His true place is foremost among the religious philosophers of the Anglican Church; the first to prepare the religious problem for the light in which we are invited to look at the universe by modern agnostics, and under the modern conception of natural evolution. He is the most picturesque figure in that Anglican succession which, in the seventeenth century, includes Hooker and Cudworth; in the eighteenth, Clarke and Butler; and in the nineteenth, may we say Coleridge, in lack of a representative in orders; although Mansel, Maurice, Mozley, and Jowett are not to be forgotten, nor Isaac Taylor among laymen[1]: Newman and Arnold, illustrious otherwise, are hardly representatives of metaphysical philosophy.

A more pensive tone runs through the closing years at Cloyne. Attempts were made in vain to withdraw him from the 'remote corner' to which he had been so long confined. His friends urged his claims for the Irish Primacy. 'I am no man's rival or competitor in this matter,' were his words to Prior. 'I am not in love with feasts,

[1] Taylor, in later life, conformed to the Anglican Church.

and crowds, and visits, and late hours, and strange faces, and a hurry of affairs often insignificant. For my own private satisfaction, I had rather be master of my time than wear a diadem.' Letters to his American friends, Johnson and Clap, shew him still moved by the inspiration which carried him over the Atlantic, and record his influence in the development of American colleges [1]. The home education of his three sons was another interest. We are told by his widow that 'he would not trust his sons to mercenary hands. Though old and sickly, he performed the constant tedious task himself.' Of the fruit of this home education there is little to tell. The death of William, his favourite boy, in 1751, 'was thought to have struck too close to his father's heart.' 'I am a man,' so he writes, 'retired from the amusements, politics, visits, and what the world calls pleasure. I had a little friend, educated always under mine own eye, whose painting delighted me, whose music ravished me, and whose lively gay spirit was a continual feast. It has pleased God to take him hence.' The eldest son, Henry, born in Rhode Island, did not long survive his father. George, the third son, was destined for Oxford, and this destiny was connected with a new project. The 'life academico-philosophical,' which he sought in vain to realise in Bermuda, he now hoped to find for himself in the city of colleges on the Isis. 'The truth is,' he wrote to Prior as early as September 1746, 'I have a scheme of my own for this long time past, in which I propose more satisfaction and enjoyment to myself than I could in that high station [2], which I neither solicited, nor so much as wished for. A greater income would not tempt me to remove from Cloyne, and set aside my Oxford scheme; which, though delayed by the illness of my son [3], yet I am as intent upon it and as much resolved as ever.'

[1] See Berkeley's *Life and Letters*, chap. viii.
[2] The Primacy.
[3] This seems to have been his eldest son, Henry.

The last of Berkeley's letters which we have is to Dean Gervais. It expresses the feeling with which in April, 1752, he was contemplating life, on the eve of his departure from Cloyne.

'I submit to years and infirmities. My views in this world are mean and narrow; it is a thing in which I have small share, and which ought to give me small concern. I abhor business, and especially to have to do with great persons and great affairs. The evening of life I choose to pass in a quiet retreat. Ambitious projects, intrigues and quarrels of statesmen, are things I have formerly been amused with, but they now seem to be a vain, fugitive dream.'

Four months after this, Berkeley saw Cloyne for the last time. In August he quitted it for Oxford, which he had long pictured in imagination as the ideal home of his old age. When he left Cork in the vessel which carried his wife, his daughter, and himself to Bristol, he was prostrated by weakness, and had to be taken from Bristol to Oxford on a horse-litter. It was late in August when they arrived there [1].

Our picture of Berkeley at Oxford is dim. According to tradition he occupied a house in Holywell Street, near the gardens of New College and not far from the cloisters of Magdalen. It was a changed world to him. While he was exchanging Ireland for England, death was removing old English friends. Before he left Cloyne he must have heard of the death of Butler in June, at Bath, where Benson, at the request of Secker, affectionately watched the last hours of the author of the *Analogy*. Benson followed Butler in August.

[1] His son George was already settled at Christ Church. Henry, the eldest son, born in Rhode Island, was then 'abroad in the south of France for his health,' as one of his brother George's letters tells us, found among the Johnson MSS.

We hear of study resumed in improved health in the home in Holywell Street. In October a *Miscellany, containing several Tracts on various Subjects,* 'by the Bishop of Cloyne,' appeared simultaneously in London and Dublin. The Tracts were reprints, with the exception of *Further Thoughts on Tar-water,* which may have been written before he left Ireland. The third edition of *Alciphron* also appeared in this autumn. But *Siris* is the latest record of his philosophical thought. A comparison of the *Commonplace Book* and the *Principles* with the *Analyst* and *Siris* gives the measure of his advancement. After the sanguine beginning perhaps the comparison leaves a sense of disappointment, when we find metaphysics mixed up with mathematics in the *Analyst,* and metaphysics obscurely mixed up with medicine in *Siris.*

It is curious that, although in 1752 David Hume's *Treatise of Human Nature* had been before the world for thirteen years and his *Inquiry concerning Human Understanding* for four years, there is no allusion to Hume by Berkeley. He was Berkeley's immediate successor in the eighteenth-century evolution of European thought. The sceptical criticism of Hume was applied to the dogmatic religious philosophy of Berkeley, to be followed in its turn by the abstractly rational and the moral reconstructive criticism of Kant. *Alciphron* is, however, expressly referred to by Hume; indirectly, too, throughout the religious agnosticism of his *Inquiry,* also afterwards in the *Dialogues on Natural Religion,* in a vindication of minute philosophy by profounder reasonings than those which satisfied Lysicles and Alciphron. Berkeley, Hume, and Kant are the three significant philosophical figures of their century, each holding the supreme place successively in its beginning, middle, and later years. Perhaps Reid in Scotland did more than any other in his generation to make Berkeley known; not, however, for his true work in constructive

religious thought, but for his supposed denial of the reality of the things we see and touch[1].

The ideal life in Oxford did not last long. On the evening of Sunday, January 14, 1753, Berkeley was suddenly confronted by the mystery of death. 'As he was sitting with my mother, my sister, and myself,' so his son wrote to Johnson at Stratford, in October, 'suddenly, and without the least previous notice or pain, he was removed to the enjoyment of eternal rewards; and although all possible means were instantly used, no symptom of life ever appeared after; nor could the physicians assign any cause for his death. He arrived at Oxford on August 25, and had received great benefit from the change of air, and by God's blessing on tar-water, insomuch that for some years he had not been in better health than he was the instant before he left us[2].'

Six days later he was buried in Oxford, in the Cathedral of Christ Church[3], where his tomb bears an appropriate inscription by Dr. Markham, afterwards Archbishop of York.

[1] See Appendix D. Reid, like Berkeley, held that 'matter cannot be the cause of anything,' but this not as a consequence of the new conception of the world presented to the senses, through which alone Berkeley opens *his* way to its powerlessness; although Reid supposes that in his youth he followed Berkeley in this too. See *Thomas Reid* (1898), in 'Famous Scots Series,' where I have enlarged on this.

[2] Johnson MSS.

[3] That Berkeley was buried in Oxford is mentioned in his son's letter to Johnson, in which he says: 'His remains are interred in the Cathedral of Christ Church, and next week a monument to his memory will be erected with an inscription by Dr. Markham, a Student of this College.' As the son was present at, and superintended the arrangements for his father's funeral, it can be no stretch of credulity to believe that he knew where his father was buried. It may be added that Berkeley himself had provided in his Will 'that my body be buried in the churchyard of the parish in which I die.' The Will, dated July 31, 1752, is given *in extenso* in my *Life and Letters* of Berkeley, p. 345. We have also the record of burial in the Register of Christ Church Cathedral, which shews that 'on January ye 20th 1753, ye Right Reverend John (*sic*) Berkley, Ld Bishop of Cloyne, was buryed' there. This disposes of the statement on p. 17 of Diprose's *Account of the Parish of Saint Clement Danes* (1868), that Berkeley was buried in that church.

I may add that a beautiful memorial of Berkeley has lately been placed in the Cathedral of Cloyne, by subscriptions in this country and largely in America.

ERRATA

VOL. I

Page 99, line 3 *for* 149-80 *read* 149-60
99, line 22 *for* —and to be 'suggested,' not signified *read* — instead of being only suggested
100, line 10 *for* hearing *read* seeing
103, note, lines 5, 6 *for* pp. 111, 112 *read* p. 210
200, note, line 14 *for* Adam *read* Robert
364, line 8 from foot *for* and *read* which
512, note 6, line 3 *for* imminent *read* immanent

VOL. II

Page 194, note, line 3 *for* Tyndal *read* Tindal
207, line 1, insert 13. before *Alc.*
377, line 6, *for* antethesis *read* antithesis.

VOL. IV

Page 285, lines 4, 5 *for* Thisus Alus Cujus, &c. *read* Ursus. Alus. Cuius. &c. The inscription, strictly speaking, appears on the Palace of the Counts Orsini, and is dated MD.

COMMONPLACE BOOK

MATHEMATICAL, ETHICAL, PHYSICAL, AND METAPHYSICAL

WRITTEN AT TRINITY COLLEGE, DUBLIN, IN 1705–8

First published in 1871

EDITOR'S PREFACE

TO THE

COMMONPLACE BOOK

BERKELEY'S juvenile *Commonplace Book* is a small quarto volume, in his handwriting, found among the Berkeley manuscripts in possession of the late Archdeacon Rose. It was first published in 1871, in my edition of Berkeley's Works. It consists of occasional thoughts, mathematical, physical, ethical, and metaphysical, set down in miscellaneous fashion, for private use, as they arose in the course of his studies at Trinity College, Dublin. They are full of the fervid enthusiasm that was natural to him, and of sanguine expectations of the issue of the prospective authorship for which they record preparations. On the title-page is written, 'G. B. Trin. Dub. alum.,' with the date 1705, when he was twenty years of age. The entries are the gradual accumulation of the next three years, in one of which the *Arithmetica* and the *Miscellanea Mathematica* made their appearance. The *New Theory of Vision*, given to the world in 1709, was evidently much in his mind, as well as the sublime conception of the material world in its necessary subordination to the spiritual world, of which he delivered himself in his book of *Principles*, in 1710.

This disclosure of Berkeley's thoughts about things, in the years preceding the publication of his first essays, is indeed a precious record of the initial struggles of ardent philosophical genius. It places the reader in intimate companionship with him when he was beginning to awake into intellectual and spiritual life. We hear him soliloquising. We see him trying to translate into reasonableness our crude inherited beliefs about the material world and the natural order of the universe, self-conscious personality, and the Universal Power or Providence—all under the sway of a new determining Principle which was taking profound possession of his soul. He finds that he has only to look at the concrete things of sense in the light of this great discovery to see the artificially induced perplexities of the old philosophers disappear, along with their imposing abstractions, which turn out empty words. The thinking is throughout fresh and sincere; sometimes impetuous and one-sided; the outcome of a mind indisposed to take things upon trust, resolved to inquire freely, a rebel against the tyranny of language, morally burdened with the consciousness of a new world-transforming conception, which duty to mankind obliged him to reveal, although his message was sure to offend. Men like to regard things as they have been wont. This new conception of the surrounding world—the impotence of Matter, and its subordinate office in the Supreme Economy must, he foresees, disturb those accustomed to treat outward things as the only realities, and who do not care to ask what constitutes reality. Notwithstanding the ridicule and ill-will that his transformed material world was sure to meet with, amongst the many who accept empty words instead of genuine insight, he was resolved to deliver himself of his thoughts through the press, but with the politic conciliation of a persuasive Irish pleader.

The *Commonplace Book* steadily recognises the adverse influence of one insidious foe. Its world-transforming-

Principle has been obscured by 'the mist and veil of words.' The abstractions of metaphysicians, which poison human language, had to be driven out of the author's mind before he could see the light, and must be driven out of the minds of others before they could be got to see it along with him: the concrete world as realisable only in percipient mind is with difficulty introduced into the vacant place. 'The chief thing I pretend to is only to remove the mist and veil of words.' He exults in the transformed mental scene that then spontaneously rises before him. 'My speculations have had the same effect upon me as visiting foreign countries,—in the end I return where I was before, get my heart at ease, and enjoy myself with more satisfaction. The philosophers lose their abstract matter; the materialists lose their abstract extension; the profane lose their extended deity. Pray what do the rest of mankind lose?' This beneficent revolution seemed to be the issue of a simple recognition of the fact, that the true way of regarding the world we see and touch is to regard it as consisting of ideas or phenomena that are presented to human senses, somehow regularly ordered, and the occasions of pleasure or pain to us as we conform to or rebel against their natural order. This is the surrounding universe—at least in its relations to us, and that is all in it that we have to do with. 'I know not,' he says, 'what is meant by things considered in themselves, i.e. in abstraction. This is nonsense. Thing and idea are words of much about the same extent and meaning. Existence is not conceivable without perception and volition. I only declare the meaning of the word *existence*, as far as I can comprehend it.'

In the *Commonplace Book* we see the youth at Trinity College forging the weapons which he was soon to direct against the materialism and scepticism of the generation into which he was born. Here are rough drafts, crude hints of intended arguments, probing of unphilosophical mathematicians—even Newton and Descartes, memoranda

of facts, more or less relevant, on their way into the *Essay on Vision* and the treatise on *Principles*—seeds of the philosophy that was to be gradually unfolded in his life and in his books. We watch the intrepid thinker, notwithstanding the inexperience of youth, more disposed to give battle to mathematicians and metaphysicians than to submit even provisionally to any human authority. It does not seem that his scholarship or philosophical learning was extensive. Descartes, Malebranche, and Locke were his intimates; Hobbes and Spinoza were not unknown to him; Newton and some lesser lights among the mathematicians are often confronted. He is more rarely in company with the ancients or the mediaevalists. No deep study of Aristotle appears, and there is even a disposition to disparage Plato. He seeks for his home in the 'new philosophy' of experience; without anticipations of Kant, as the critic of what is presupposed in the scientific reliability of any experience, against whom his almost blind zeal against abstractions would have set him at this early stage. 'Pure intellect I understand not at all,' is one of his entries. He asks himself, 'What becomes of the *aeternae veritates*?' and his reply is, 'They vanish.' When he tells himself that 'we must with the mob place certainty in the senses,' the words are apt to suggest that the senses are our only source of knowledge, but I suppose his meaning is that the senses must be trustworthy, as 'the mob' assume. Yet occasionally he uses language which looks like an anticipation of David Hume, as when he calls mind 'a congeries of perceptions. Take away perceptions,' he adds, 'and you take away mind. Put the perceptions and you put the mind. The understanding seemeth not to differ from its perceptions and ideas.' He seems unconscious of the total scepticism which such expressions, when strictly interpreted, are found to involve. But after all, the reader must not apply rigorous rules of interpretation to random entries or provisional

memoranda, meant only for private use, by an enthusiastic student who was preparing to produce books.

I have followed the manuscript of the *Commonplace Book*, omitting a few repetitions of thought in the same words. Here and there Berkeley's writing is almost obliterated and difficult to decipher, apparently through accident by water in the course of his travels, when, as he mentions long after in one of his letters, several of his manuscripts were lost and others were injured.

The letters of the alphabet which are interpreted on the first page, and prefixed on the margin to some of the entries, may so far help to bring the apparent chaos of entries under a few articulate heads.

I have added some annotations here and there as they happened to occur, and these might have been multiplied indefinitely had space permitted.

COMMONPLACE BOOK

I. = Introduction.
M. = Matter.
P. = Primary and Secondary qualities.
E. = Existence.
T. = Time.
S. = Soul—Spirit.
G. = God.
Mo. = Moral Philosophy.
N. = Natural Philosophy.

Qu. If there be not two kinds of visible extension—one perceiv'd by a confus'd view, the other by a distinct successive direction of the optique axis to each point?

I. No general ideas[1]. The contrary a cause of mistake or confusion in mathematiques, &c. This to be intimated in y^e^ Introduction[2].

The Principle may be apply'd to the difficulties of conservation, co-operation, &c.

N. Trifling for the [natural] philosophers to enquire the cause of magnetical attractions, &c. They onely search after co-existing ideas[3].

M. Quæcunque in Scriptura militant adversus Copernicum,
P. militant pro me.

M. All things in the Scripture w^ch^ side with the vulgar
P. against the learned, side with me also. I side in all things with the mob.

[1] 'General ideas,' i. e. *abstract* general ideas, distinguished, in Berkeley's nominalism, from *concrete* general ideas, or from general names, which are signs of any one of an indefinite number of individual objects. Cf. *Principles*, Introduction, sect. 16.

[2] Introduction to the *Principles of Human Knowledge*.

[3] 'co-existing ideas,' i. e. phenomena presented in uniform order to the senses.

M. I know there is a mighty sect of men will oppose me, but yet I may expect to be supported by those whose minds are not so far overgrown wth madness. These are far the greatest part of mankind—especially Moralists, Divines, Politicians; in a word, all but Mathematicians and Natural Philosophers. I mean only the hypothetical gentlemen. Experimental philosophers have nothing whereat to be offended in me.

Newton begs his Principles; I demonstrate mine [1].

E. I must be very particular in explaining w^{t} is meant by things existing—in houses, chambers, fields, caves, &c. —w^{n} not perceiv'd as well as w^{n} perceived; and shew how the vulgar notion agrees with mine, when we narrowly inspect into the meaning and definition of the word *existence*, w^{h} is no simple idea, distinct from perceiving and being perceived [2].

The Schoolmen have noble subjects, but handle them ill. The mathematicians have trifling subjects, but reason admirably about them. Certainly their method and arguing are excellent.

God knows how far our knowledge of intellectual beings may be enlarg'd from the Principles.

M. The reverse of the Principle I take to have been the chief source of all that scepticism and folly, all those contradictions and inextricable puzzling absurdities, that have in all ages been a reproach to human reason, as well as of that idolatry, whether of images or of gold, that blinds the greatest part of the world, and that shamefull immorality that turns us into beasts.

E. היה Vixit & fuit.

οὐσία, the name for substance, used by Aristotle, the Fathers, &c.

If at the same time we shall make the Mathematiques much more easie and much more accurate, w^{t} can be objected to us [3]?

[1] Newton postulates a world of matter and motion, governed mechanically by laws within itself: Berkeley finds himself charged with New Principles, demanded by reason, with which Newton's postulate is inconsistent.

[2] He attempts this in many parts of the *Principles* and *Dialogues*. He recognises the difficulty of reconciling his New Principles with the *identity* and *permanence* of sensible things.

[3] He contemplated thus early ap-

We need not force our imagination to conceive such very small lines for infinitesimals. They may every whit as well be imagin'd big as little, since that the integer must be infinite.

Evident that w^ch has an infinite number of parts must be infinite.

We cannot imagine a line or space infinitely great—therefore absurd to talk or make propositions about it.

We cannot imagine a line, space, &c., quovis lato majus. Since y^t what we imagine must be datum aliquod; a thing can't be greater than itself.

If you call infinite that w^ch is greater than any assignable by another, then I say, in that sense there may be an infinite square, sphere, or any other figure, w^ch is absurd.

Qu. if extension be resoluble into points it does not consist of?

No reasoning about things whereof we have no ideas[1]; therefore no reasoning about infinitesimals.

No word to be used without an idea[1].

S. If uneasiness be necessary to set the Will at work, Qu. how shall we will in heaven?

Bayle's, Malbranch's, &c. arguments do not seem to prove against Space, but onely against Bodies.

M. P. I agree in nothing w^th the Cartesians as to y^e existence of Bodies & Qualities[2].

Aristotle as good a man as Euclid, but he was allowed to have been mistaken.

Lines not proper for demonstration.

M. We see the house itself, the church itself; it being an idea and nothing more. The house itself, the church itself, is an idea, i. e. an object—immediate object—of thought[3].

plications of his New Principles to Mathematics, afterwards made in his book of *Principles*, sect. 118–32.

[1] What Berkeley calls *ideas* are either perceptible by the senses or imagined: either way they are concrete: *abstract ideas* are empty words.

[2] i. e. the existence of bodies and their qualities independently of—in abstraction from—all percipient mind. While the spiritual theism of Descartes is acceptable, he rejects his mechanical conception of the material world.

[3] But a 'house' or a 'church' includes more than *visible* ideas, so that we cannot, strictly speaking, be said to see it. We see immediately only visible signs of its invisible qualities.

Instead of injuring, our doctrine much benefits geometry.

E. Existence is percipi, or percipere, [or velle, i.e. agere [1]]. The horse is in the stable, the books are in the study as before.

N. In physiques I have a vast view of things soluble hereby, but have not leisure.

N. Hyps and such like unaccountable things confirm my doctrine.

Angle not well defined. See Pardies' Geometry, by Harris, &c. This one ground of trifling.

N. One idea not the cause of another—one power not the cause of another. The cause of all natural things is onely God. Hence trifling to enquire after second causes. This doctrine gives a most suitable idea of the Divinity [2].

N. Absurd to study astronomy and other the like doctrines as speculative sciences.

N. The absurd account of memory by the brain, &c. makes for me.

How was light created before man? Even so were Bodies created before man [3].

E. Impossible anything besides that w^ch^ thinks and is thought on should exist [4].

That w^ch^ is visible cannot be made up of invisible things.

M. S. is that wherein there are not contain'd distinguishable sensible parts. Now how can that w^ch^ hath not sensible parts be divided into sensible parts? If you say it may be divided into insensible parts, I say these are nothings.

Extension abstract from sensible qualities is no sensation, I grant; but then there is no such idea, as any one may try [5]. There is onely a considering the number of points without the sort of them, & this makes more for me, since it must be in a considering thing.

[1] This is added in the margin.

[2] The total impotence of Matter, and the omnipotence of Mind or Spirit in Nature, is thus early becoming the dominant thought with Berkeley.

[3] This refers to an objection to the New Principles that is apparently reinforced by recent discoveries in geology. But if these contradict the Principles, so does the existence of a table while I am only seeing it.

[4] Existence, in short, can be realised only in the form of living percipient mind.

[5] Berkeley hardly distinguishes uncontingent mathematical *relations*, to which the sensible ideas or phenomena in which the relations are concretely manifested must conform.

Mem. Before I have shewn the distinction between visible & tangible extension, I must not mention them as distinct. I must not mention M. T. & M. V., but in general M. S., &c.[1]

Qu. whether a M. V. be of any colour? a M. T. of any tangible quality?

If visible extension be the object of geometry, 'tis that which is survey'd by the optique axis.

P. I may say the pain is *in* my finger, &c., according to my doctrine[2].

Mem. Nicely to discuss w^{t} is meant when we say a line consists of a certain number of inches or points, &c.; a circle of a certain number of square inches, points, &c. Certainly we may think of a circle, or have its idea in our mind, without thinking of points or square inches, &c.; whereas it should seem the idea of a circle is not made up of the ideas of points, square inches, &c.

Qu. Is any more than this meant by the foregoing expressions, viz. that squares or points may be perceived in or made out of a circle, &c., or that squares, points, &c. are actually in it, i.e. are perceivable in it?

A line in abstract, or Distance, is the number of points between two points. There is also distance between a slave & an emperor, between a peasant & philosopher, between a drachm & a pound, a farthing & a crown, &c.; in all which Distance signifies the number of intermediate ideas.

Halley's doctrine about the proportion between infinitely great quantities vanishes. When men speak of infinite quantities, either they mean finite quantities, or else talk of [that whereof they have[3]] no idea; both which are absurd.

If the disputations of the Schoolmen are blam'd for intricacy, triflingness, & confusion, yet it must be acknow-

[1] M. T. = matter tangible; M. V. = matter visible; M. S. = matter sensible. The distinctions in question were made prominent in the *Essay on Vision*. See sect. 1, 121–45.

[2] Which the common supposition regarding primary qualities seems to contradict.

[3] [That need not have been blotted out—'tis good sense, if we do but determine w^{t} we mean by *thing* and *idea*.]—AUTHOR, on blank page of the MS.

ledg'd that in the main they treated of great & important subjects. If we admire the method & acuteness of the Math[ematicians]—the length, the subtilty, the exactness of their demonstrations—we must nevertheless be forced to grant that they are for the most part about trifling subjects, and perhaps mean nothing at all.

Motion on 2d thoughts seems to be a simple idea.

P. Motion distinct from y^e^ thing moved is not conceivable.

N. Mem. To take notice of Newton for defining it [motion]; also of Locke's wisdom in leaving it undefin'd [1].

Ut ordo partium temporis est immutabilis, sin etiam ordo partium spatii. Moveantur hæ de locis suis, et movebuntur (ut ita dicam) de seipsis. Truly number is immensurable. That we will allow with Newton.

P. Ask a Cartesian whether he is wont to imagine his globules without colour. Pellucidness is a colour. The colour of ordinary light of the sun is white. Newton in the right in assigning colours to the rays of light.

A man born blind would not imagine Space as we do. We give it always some dilute, or duskish, or dark colour —in short, we imagine it as visible, or intromitted by the eye, w^ch^ he would not do.

N. Proinde vim inferunt sacris literis qui voces hasce (v. tempus, spatium, motus) de quantitatibus mensuratis ibi interpretantur. Newton, p. 10.

N. I differ from Newton, in that I think the recession ab axe motus is not the effect, or index, or measure of motion, but of the vis impressa. It sheweth not w^t^ is truly moved, but w^t^ has the force impressed on it, or rather that w^ch^ hath an impressed force.

D and P are not proportional in all circles. $d\,d$ is to $\frac{1}{4}\,d\,p$ as d to $\frac{p}{4}$; but d and $\frac{p}{4}$ are not in the same proportion in all circles. Hence 'tis nonsense to seek the terms of one general proportion whereby to rectify all peripheries, or of another whereby to square all circles.

N.B. If the circle be squar'd arithmetically, 'tis squar'd geometrically, arithmetic or numbers being nothing but lines & proportions of lines when apply'd to geometry.

[1] See Locke's *Essay*, Bk. III. ch. 4, § 8, where he criticises attempts to define motion, as involving a *petitio*.

Mem. To remark Cheyne[1] & his doctrine of infinites.

Extension, motion, time, do each of them include the idea of succession, & so far forth they seem to be of mathematical consideration. Number consisting in succession & distinct perception, w^ch^ also consists in succession; for things at once perceiv'd are jumbled and mixt together in the mind. Time and motion cannot be conceiv'd without succession; and extension, qua mathemat., cannot be conceiv'd but as consisting of parts w^ch^ may be distinctly & successively perceiv'd. Extension perceived at once & *in confuso* does not belong to math.

The simple idea call'd Power seems obscure, or rather none at all, but onely the relation 'twixt Cause and Effect. When I ask whether A can move B, if A be an intelligent thing, I mean no more than whether the volition of A that B move be attended with the motion of B? If A be senseless, whether the impulse of A against B be followed by y^e^ motion of B[2]?

Barrow's arguing against indivisibles, lect. i. p. 16, is a petitio principii, for the Demonstration of Archimedes supposeth the circumference to consist of more than 24 points. Moreover it may perhaps be necessary to suppose the divisibility *ad infinitum*, in order to demonstrate that the radius is equal to the side of the hexagon.

Shew me an argument against indivisibles that does not go on some false supposition.

A great number of insensibles—or thus, two invisibles, say you, put together become visible; therefore that M. V. contains or is made up of invisibles. I answer, the M. V. does not comprise, is not composed of, invisibles. All the matter amounts to this, viz. whereas I had no idea awhile agoe, I have an idea now. It remains for you to prove that I came by the present idea because there were two invisibles added together. I say the invisibles are nothings, cannot exist, include a contradiction[3].

[1] George Cheyne, the physician (known afterwards as author of the *English Malady*), published in 1705 a work on Fluxions, which procured him admission to the Royal Society. He was born in 1670.

[2] This reminds us of Hume, and inclines towards the empirical notion of Causation, as merely constancy in sequence—not even continuous metamorphosis.

[3] This is Berkeley's objection to

I am young, I am an upstart, I am a pretender, I am vain. Very well. I shall endeavour patiently to bear up under the most lessening, vilifying appellations the pride & rage of man can devise. But one thing I know I am not guilty of. I do not pin my faith on the sleeve of any great man. I act not out of prejudice or prepossession. I do not adhere to any opinion because it is an old one, a reviv'd one, a fashionable one, or one that I have spent much time in the study and cultivation of.

Sense rather than reason or demonstration ought to be employed about lines and figures, these being things sensible; for as for those you call insensible, we have proved them to be nonsense, nothing [1].

I. If in some things I differ from a philosopher I profess to admire, 'tis for that very thing on account whereof I admire him, namely, the love of truth. This &c.

I. Whenever my reader finds me talk very positively, I desire he'd not take it ill. I see no reason why certainty should be confined to the mathematicians.

I say there are no incommensurables, no surds. I say the side of any square may be assign'd in numbers. Say you assign unto me the side of the square 10. I ask w^t 10 —10 feet, inches, &c., or 10 points? If the later, I deny there is any such square, 'tis impossible 10 points should compose a square. If the former, resolve y^r 10 square inches, feet, &c. into points, & the number of points must necessarily be a square number whose side is easily assignable.

A mean proportional cannot be found betwixt any two given lines. It can onely be found betwixt those the numbers of whose points multiply'd together produce a square number. Thus betwixt a line of 2 inches & a line of 5 inches a mean geometrical cannot be found, except the number of points contained in 2 inches multiply'd by y^e number of points contained in 5 inches make a square number.

If the wit and industry of the Nihilarians were employ'd

abstract, i. e. unperceived, quantities and infinitesimals—important in the sequel.

[1] The 'lines and figures' of pure mathematics, that is to say; which he rejects as meaningless, in his horror of unrealisable abstractions.

about the usefull & practical mathematiques, what advantage had it brought to mankind!

M. You ask me whether the books are in the study now,
E. when no one is there to see them? I answer, Yes. You ask me, Are we not in the wrong for imagining things to exist when they are not actually perceiv'd by the senses? I answer, No. The existence of our ideas consists in being perceiv'd, imagin'd, thought on. Whenever they are imagin'd or thought on they do exist. Whenever they are mentioned or discours'd of they are imagin'd & thought on. Therefore you can at no time ask me whether they exist or no, but by reason of y^{t} very question they must necessarily exist.

E. But, say you, then a chimæra does exist? I answer, it doth in one sense, i. e. it is imagin'd. But it must be well noted that existence is vulgarly restrain'd to actuall perception, and that I use the word existence in a larger sense than ordinary[1].

N.B.—According to my doctrine all things are *entia rationis*, i. e. solum habent esse in intellectum.

E [[2]According to my doctrine all are not *entia rationis*. The distinction between *ens rationis* and *ens reale* is kept up by it as well as any other doctrine.]

You ask me whether there can be an infinite idea? I answer, in one sense there may. Thus the visual sphere, tho' ever so small, is infinite, i. e. has no end. But if by infinite you mean an extension consisting of innumerable points, then I ask y^{r} pardon. Points, tho' never so many, may be numbered. The multitude of points, or feet, inches, &c., hinders not their numbrableness (i. e. hinders not their being numerable) in the least. Many or most are numerable, as well as few or least. Also, if by infinite idea you mean an *idea* too great to be comprehended or perceiv'd all at once, you must excuse me. I think such an infinite is no less than a contradiction[3].

[1] Things really exist, that is to say, in degrees, *e.g.* in a lesser degree, when they are imagined than when they are actually perceived by our senses; but, in this wide meaning of existence, they may in both cases be said to exist.

[2] Added on blank page of the MS.

[3] In Berkeley's limitation of the term *idea* to what is presented objectively in sense, or represented concretely in imagination. Accord-

M. The sillyness of the current doctrine makes much for me. They commonly suppose a material world—figures, motions, bulks of various sizes, &c.—according to their own confession to no purpose. All our sensations may be, and sometimes actually are, without them; nor can men so much as conceive it possible they should concur in any wise to the production of them.

M. Ask a man, I mean a philosopher, why he supposes this vast structure, this compages of bodies? he shall be at a stand; he'll not have one word to say. W^ch^ sufficiently shews the folly of the hypothesis.

M. Or rather why he supposes all y^s^ Matter? For bodies and their qualities I do allow to exist independently of *our* mind.

S. Qu. How is the soul distinguish'd from its ideas? Certainly if there were no sensible ideas there could be no soul, no perception, remembrance, love, fear, &c.; no faculty could be exerted [1].

S. The soul is the Will, properly speaking, and as it is distinct from ideas.

S. The grand puzzling question, whether I sleep or wake, easily solv'd.

Qu. Whether minima or meer minima may not be compar'd by their sooner or later evanescence, as well as by more or less points, so that one sensible may be greater than another, though it exceeds it not by one point?

Circles on several radius's are not similar figures, they having neither all nor any an infinite number of sides. Hence in vain to enquire after 2 terms of one and y^e^ same proportion that should constantly express the reason of the *d* to the *p* in all circles.

Mem. To remark Wallis's harangue, that the aforesaid proportion can neither be expressed by rational numbers nor surds.

ingly 'an infinite idea' would be an idea which transcends ideation —an express contradiction.

[1] Does the *human* spirit depend on *sensible* ideas as much as they depend on spirit? Other orders of spiritual beings may be percipient of other sorts of phenomena than those presented in those few senses to which man is confined, although self-conscious activity abstracted from *all* sorts of presented phenomena seems impossible. But a self-conscious spirit is not necessarily dependent on *our* material world or *our* sense experience.

We can no more have an idea of length without breadth or visibility, than of a general figure.

One idea may be like another idea, tho' they contain no common simple idea[1]. Thus the simple idea red is in some sense like the simple idea blue; 'tis liker it than sweet or shrill. But then those ideas w^ch are so said to be alike, agree both in their connexion with another simple idea, viz. extension, & in their being receiv'd by one & the same sense. But, after all, nothing can be like an idea but an idea.

No sharing betwixt God & Nature or second causes in my doctrine.

M. Materialists must allow the earth to be actually mov'd by the attractive power of every stone that falls from the air, with many other the like absurditys.

Enquire concerning the pendulum clock, &c.; whether those inventions of Huygens, &c. be attained to by my doctrine.

The $''''$ & $'''''$ & $''''''$ &c. of time are to be cast away and neglected, as so many noughts or nothings.

Mem. To make experiments concerning minimums and their colours, whether they have any or no, & whether they can be of that green w^ch seems to be compounded of yellow and blue.

S. Qu. Whether it were not better *not* to call the operations of the mind ideas—confining this term to things sensible[2]?

E. Mem. diligently to set forth how that many of the ancient philosophers run into so great absurditys as even to deny the existence of motion, and of those other things they perceiv'd actually by their senses. This sprung from their not knowing w^t Existence was, and wherein it consisted. This the source of all their folly. 'Tis on the discovering of the nature and meaning and import of Existence that I chiefly insist. This puts a wide difference betwixt the

[1] [This I do not altogether approve of.]—AUTHOR, on margin.

[2] He afterwards guarded the difference, by contrasting *notion* and *idea*, confining the latter to phenomena presented objectively to our senses, or represented in sensuous imagination, and applying the former to intellectual apprehension of 'operations of the mind,' and of 'relations' among ideas.

sceptics &c. & me. This I think wholly new. I am sure this is new to me[1].

We have learn'd from Mr. Locke that there may be, and that there are, several glib, coherent, methodical discourses, which nevertheless amount to just nothing. This by him intended with relation to the Scholemen. We may apply it to the Mathematicians.

Qu. How can all words be said to stand for ideas? The word blue stands for a colour without any extension, or abstract from extension. But we have not an idea of colour without extension. We cannot imagine colour without extension.

Locke seems wrongly to assign a double use of words: one for communicating & the other for recording our thoughts. 'Tis absurd to use words for recording our thoughts to ourselves, or in our private meditations[2].

No one abstract simple idea like another. Two simple ideas may be connected with one & the same 3^{d} simple idea, or be intromitted by one & the same sense. But consider'd in themselves they can have nothing common, and consequently no likeness.

Qu. How can there be any abstract ideas of colours? It seems not so easily as of tastes or sounds. But then all ideas whatsoever are particular. I can by no means conceive an abstract general idea. 'Tis one thing to abstract one concrete idea from another of a different kind, & another thing to abstract an idea from all particulars of the same kind[3].

N. Mem. Much to recommend and approve of experimental philosophy.

S. What means Cause as distinguish'd from Occasion? Nothing but a being w^{ch} wills, when the effect follows the volition. Those things that happen from without we are not the cause of. Therefore there is some other Cause of them, i. e. there is a Being that wills these perceptions in us[4].

[1] See *Principles*, sect. 89.

[2] Is thought, then, independent of language? Can we realise thought worthy of the name without use of words? This is Berkeley's excessive juvenile reaction against verbal abstractions.

[3] Every general notion is *ideally realisable* in one or other of its possible concrete or individual applications.

[4] This is the germ of Berkeley's notion of the objectivity of the material world to individual percipients

[S. [[1] It should be said, nothing but a Will—a Being which wills being unintelligible.]

One square cannot be double of another. Hence the Pythagoric theorem is false.

Some writers of catoptrics absurd enough to place the apparent place of the object in the Barrovian case behind the eye.

Blew and yellow chequers still diminishing terminate in green. This may help to prove the composition of green.

There is in green 2 foundations of 2 relations of likeness to blew & yellow. Therefore green is compounded.

A mixt cause will produce a mixt effect. Therefore colours are all compounded that we see.

Mem. To consider Newton's two sorts of green.

N. B. My abstract & general doctrines ought not to be condemn'd by the Royall Society. 'Tis w^{t} their meeting did ultimately intend. V. Sprat's History S. R.[2]

Mem. To premise a definition of idea[3].

I. Mo. The 2 great principles of Morality—the being of a God & the freedom of man. Those to be handled in the beginning of the Second Book[4].

Subvertitur geometria ut non practica sed speculativa.

Archimedes's proposition about squaring the circle has nothing to do with circumferences containing less than 96 points; & if the circumference contain 96 points it may be apply'd, but nothing will follow against indivisibles. V. Barrow.

Those curve lines that you can rectify geometrically. Compare them with their equal right lines & by a microscope you shall discover an inequality. Hence my squaring of the circle as good and exact as the best.

M. Qu. whether the substance of body or anything else be

and so of the rise of individual self-consciousness.

[1] Added by Berkeley on blank page of the MS.

[2] Cf. p. 420, note 2. Bishop Sprat's *History of the Royal Society* appeared in 1667.

[3] Much need; for what he means by *idea* has not been attended to by his critics.

[4] What 'Second Book' is this? Does he refer to the 'Second Part' of the *Principles*, which never appeared? God is the culmination of his philosophy, in *Siris*.

any more than the collection of concrete ideas included in that thing? Thus the substance of any particular body is extension, solidity, figure[1]. Of general abstract body we can have no idea.

I. Mem. Most carefully to inculcate and set forth that the endeavouring to express abstract philosophic thoughts by words unavoidably runs a man into difficulties. This to be done in the Introduction[2].

Mem. To endeavour most accurately to understand what is meant by this axiom: Quæ sibi mutuo congruunt æqualia sunt.

Qu. what the geometers mean by equality of lines, & whether, according to their definition of equality, a curve line can possibly be equal to a right line?

If wth me you call those lines equal w^{ch} contain an equal number of points, then there will be no difficulty. That curve is equal to a right line w^{ch} contains the same points as the right one doth.

M. I take not away substances. I ought not to be accused of discarding substance out of the reasonable world[3]. I onely reject the philosophic sense (w^{ch} in effect is no sense) of the word substance. Ask a man not tainted with their jargon w^{t} he means by corporeal substance, or the substance of body. He shall answer, bulk, solidity, and such like sensible qualitys. These I retain. The philosophic nec quid, nec quantum, nec quale, whereof I have no idea, I discard; if a man may be said to discard that which never had any being, was never so much as imagin'd or conceiv'd.

M. In short, be not angry. You lose nothing, whether real or chimerical. W^{t}ever you can in any wise conceive or imagine, be it never so wild, so extravagant, & absurd, much good may it do you. You may enjoy it for me. I'll never deprive you of it.

[1] This is Berkeley's material substance. Individual material substances are for him, steady aggregates of sense-given phenomena, having the efficient and final cause of their aggregation in eternally active Mind—active mind, human and Divine, being essential to their realisation for man.

[2] Cf. Introduction to the *Principles*, especially sect. 18–25.

[3] Stillingfleet charges Locke with 'discarding substance out of the reasonable part of the world.'

N. B. I am more for reality than any other philosophers[1]. They make a thousand doubts, & know not certainly but we may be deceiv'd. I assert the direct contrary.

A line in the sense of mathematicians is not meer distance. This evident in that there are curve lines.

Curves perfectly incomprehensible, inexplicable, absurd, except we allow points.

I. If men look for a thing where it's not to be found, be they never so sagacious, it is lost labour. If a simple clumsy man knows where the game lies, he though a fool shall catch it sooner than the most fleet & dexterous that seek it elsewhere. Men choose to hunt for truth and knowledge anywhere rather than in their own understanding, where 'tis to be found.

M. All knowledge onely about ideas. Locke, B. 4. c. 1.

S. It seems improper, & liable to difficulties, to make the word person stand for an idea, or to make ourselves ideas, or thinking things ideas.

I. Abstract ideas cause of much trifling and mistake.

Mathematicians seem not to speak clearly and coherently of equality. They nowhere define w^t they mean by that word when apply'd to lines.

Locke says the modes of simple ideas, besides extension and number, are counted by degrees. I deny there are any modes or degrees of simple ideas. What he terms such are complex ideas, as I have proved.

W^t do the mathematicians mean by considering curves as polygons? Either they are polygons or they are not. If they are, why do they give them the name of curves? Why do not they constantly call them polygons, & treat them as such? If they are not polygons, I think it absurd to use polygons in their stead. W^t is this but to pervert language? to adapt an idea to a name that belongs not to it but to a different idea?

The mathematicians should look to their axiom, Quæ

[1] The philosophers supposed the real things to exist behind our ideas, in concealment: Berkeley was now beginning to think that the objective ideas or phenomena presented to the senses, the existence of which needs no proof, were *themselves* the significant and interpretable realities of physical science.

congruunt sunt æqualia. I know not what they mean by bidding me put one triangle on another. The under triangle is no triangle—nothing at all, it not being perceiv'd. I ask, must sight be judge of this congruentia or not? If it must, then all lines seen under the same angle are equal, w^ch^ they will not acknowledge. Must the touch be judge? But we cannot touch or feel lines and surfaces, such as triangles, &c., according to the mathematicians themselves. Much less can we touch a line or triangle that's cover'd by another line or triangle.

Do you mean by saying one triangle is equall to another, that they both take up equal spaces? But then the question recurs, what mean you by equal spaces? If you mean *spatia congruentia*, answer the above difficulty truly.

I can mean (for my part) nothing else by equal triangles than triangles containing equal numbers of points.

I can mean nothing by equal lines but lines w^ch^ 'tis indifferent whether of them I take, lines in w^ch^ I observe by my senses no difference, & w^ch^ therefore have the same name.

Must the imagination be judge in the aforementioned cases? but then imagination cannot go beyond the touch and sight. Say you, pure intellect must be judge. I reply that lines and triangles are not operations of the mind.

If I speak positively and with the air of a mathematician in things of which I am certain, 'tis to avoid disputes, to make men careful to think before they answer, to discuss my arguments before they go to refute them. I would by no means injure truth and certainty by an affected modesty & submission to better judgments. W^t^ I lay before you are undoubted theorems; not plausible conjectures of my own, nor learned opinions of other men. I pretend not to prove them by figures, analogy, or authority. Let them stand or fall by their own evidence.

N. When you speak of the corpuscularian essences of bodys, to reflect on sect. 11. & 12. b. 4. c. 3. Locke. Motion supposes not solidity. A meer colour'd extension may give us the idea of motion.

P. Any subject can have of each sort of primary qualities but one particular at once. Lib. 4. c. 3. s. 15. Locke.

M. Well, say you, according to this new doctrine, all is but meer idea—there is nothing w^ch^ is not an *ens rationis*. I answer, things are as real, and exist *in rerum natura*, as much as ever. The difference between *entia realia* & *entia rationis* may be made as properly now as ever. Do but think before you speak. Endeavour rightly to comprehend my meaning, and you'll agree with me in this.

N. Fruitless the distinction 'twixt real and nominal essences.

We are not acquainted with the meaning of our words. Real, extension, existence, power, matter, lines, infinite, point, and many more are frequently in our mouths, when little, clear, and determin'd answers them in our understandings. This must be well inculcated.

M. Vain is the distinction 'twixt intellectual and material world[1]. V. Locke, lib. 4. c. 3. s. 27, where he says that is far more beautiful than this.

S. Mo. Foolish in men to despise the senses. If it were not for them the mind could have no knowledge, no thought at all. All * * * of introversion, meditation, contemplation, and spiritual acts, as if these could be exerted before we had ideas from without by the senses, are manifestly absurd. This may be of great use in that it makes the happyness of the life to come more conceivable and agreeable to our present nature. The schoolemen & refiners in philosophy gave the greatest part of mankind no more tempting idea of heaven or the joys of the blest.

The vast, wide-spread, universal cause of our mistakes is, that we do not consider our own notions. I mean consider them in themselves—fix, settle, and determine them,—we regarding them with relation to each other only. In short, we are much out in study[ing] the relations of things before we study them absolutely and in themselves. Thus we study to find out the relations of figures to one another, the relations also of number, without endeavouring rightly to understand the nature of extension and number in themselves. This we think

[1] If the material world can be *real* only in and through a percipient intelligence, as the realising factor.

is of no concern, of no difficulty; but if I mistake not 'tis of the last importance.

Mo. I allow not of the distinction there is made 'twixt profit and pleasure.

Mo. I'd never blame a man for acting upon interest. He's a fool that acts on any other principles. The not considering these things has been of ill consequence in morality.

My positive assertions are no less modest than those that are introduced with 'It seems to me,' 'I suppose,' &c.; since I declare, once for all, that all I write or think is entirely about things as they appear to me. It concerns no man else any further than his thoughts agree with mine. This in the Preface.

I. Two things are apt to confound men in their reasonings one with another. 1st. Words signifying the operations of the mind are taken from sensible ideas. 2ndly. Words as used by the vulgar are taken in some latitude, their signification is confused. Hence if a man use words in a determined, settled signification, he is at a hazard either of not being understood, or of speaking improperly. All this remedyed by studying the understanding.

Unity no simple idea. I have no idea meerly answering the word one. All number consists in relations[1].

Entia realia et entia rationis, a foolish distinction of the Schoolemen.

M. P. We have an intuitive knowledge of the existence of other things besides ourselves & order, præcedaneous[2]. To the knowledge of our own existence—in that we must have ideas or else we cannot think.

S. We move our legs ourselves. 'Tis we that will their movement. Herein I differ from Malbranch[3].

Mo. Mem. Nicely to discuss Lib. 4. c. 4. Locke[4].

M. Mem. Again and again to mention & illustrate the doctrine of the reality of things, rerum natura, &c.

M. W^t I say is demonstration—perfect demonstration. Wherever men have fix'd & determin'd ideas annexed to

[1] Cf. *Principles*, sect. 13, 119–122, which deny the possibility of an idea or mental picture corresponding to abstract number.

[2] 'Præcedaneous,' i.e. precedent.

[3] Who refunds human as well as natural causation into Divine agency.

[4] In which Locke treats 'Of the Reality of Knowledge,' including questions apt to lead Berkeley to inquire, Whether we could in reason suppose reality in the absence of all realising mind.

their words they can hardly be mistaken. Stick but to my definition of likeness, and 'tis a demonstration y^t^ colours are not simple ideas, all reds being like, &c. So also in other things. This to be heartily insisted on.

E. The abstract idea of Being or Existence is never thought of by the vulgar. They never use those words standing for abstract ideas.

M. I must not say the words thing, substance, &c. have been the cause of mistakes, but the not reflecting on their meaning. I will be still for retaining the words. I only desire that men would think before they speak, and settle the meaning of their words.

Mo. I approve not of that which Locke says, viz. truth consists in the joining and separating of signs.

I. Locke cannot explain general truth or knowledge without treating of words and propositions. This makes for me against abstract general ideas. Vide Locke, lib. 4. ch. 6.

I. Men have been very industrious in travelling forward. They have gone a great way. But none have gone backward beyond the Principles. On that side there lies much terra incognita to be travel'd over and discovered by me. A vast field for invention.

Twelve inches not the same idea with a foot. Because a man may perfectly conceive a foot who never thought of an inch.

A foot is equal to or the same with twelve inches in this respect, viz. they contain both the same number of points.

[Forasmuch as] to be used.

Mem. To mention somewhat w^ch^ may encourage the study of politiques, and testify of me y^t^ I am well dispos'd toward them.

I. If men did not use words for ideas they would never have thought of abstract ideas. Certainly genera and species are not abstract general ideas. Abstract ideas include a contradiction in their nature. Vide Locke[1], lib. 4. c. 7. s. 9.

A various or mixt cause must necessarily produce a various or mixt effect. This demonstrable from the

[1] Locke's 'abstract idea' is misconceived and caricatured by Berkeley in his impetuosity.

definition of a cause; which way of demonstrating must be frequently made use of in my Treatise, & to that end definitions often præmis'd. Hence 'tis evident that, according to Newton's doctrine, colours cannot be simple ideas.

M. I am the farthest from scepticism of any man. I know with an intuitive knowledge the existence of other things as well as my own soul. This is w^{t} Locke nor scarce any other thinking philosopher will pretend to [1].

I. Doctrine of abstraction of very evil consequence in all the sciences. Mem. Barrow's remark. Entirely owing to language.

Locke greatly out in reckoning the recording our ideas by words amongst the uses and not the abuses of language.

I. Of great use & y^{e} last importance to contemplate a man put into the world alone, with admirable abilitys, and see how after long experience he would know wthout words. Such a one would never think of genera and species or abstract general ideas.

I. Wonderful in Locke that he could, w^{n} advanced in years, see at all thro' a mist; it had been so long a gathering, & was consequently thick. This more to be admir'd than y^{t} he did not see farther.

Identity of ideas may be taken in a double sense, either as including or excluding identity of circumstances, such as time, place, &c.

Mo. I am glad the people I converse with are not all richer, wiser, &c. than I. This is agreeable to reason; is no sin. 'Tis certain that if the happyness of my acquaintance encreases, & mine not proportionably, mine must decrease. The not understanding this & the doctrine about relative good, discuss'd with French, Madden [2], &c., to be noticed as 2 causes of mistake in judging of moral matters.

Mem. To observe (w^{n} you talk of the division of ideas into simple and complex) that there may be another cause

[1] This and other passages refer to the scepticism, that is founded on the impossibility of our comparing our ideas of things with unperceived real things; so that we can never escape from the circle of subjectivity. Berkeley intended to refute this scepticism.

[2] Probably Samuel Madden, who afterwards edited the *Querist*.

of the undefinableness of certain ideas besides that which Locke gives; viz. the want of names.

M. Mem. To begin the First Book[1] not with mention of sensation and reflection, but instead of sensation to use perception or thought in general.

I. I defy any man to imagine or conceive perception without an idea, or an idea without perception.

E. Locke's very supposition that matter & motion should exist before thought is absurd—includes a manifest contradiction.

Locke's harangue about coherent, methodical discourses amounting to nothing, apply'd to the mathematicians.

They talk of determining all the points of a curve by an equation. W^t^ mean they by this? W^t^ would they signify by the word points? Do they stick to the definition of Euclid?

S. We think we know not the Soul, because we have no imaginable or sensible idea annex'd to that sound. This the effect of prejudice.

S. Certainly we do not know it. This will be plain if we examine what we mean by the word knowledge. Neither doth this argue any defect in our knowledge, no more than our not knowing a contradiction.

The very existence of ideas constitutes the Soul[2].

S. Consciousness[3], perception, existence of ideas, seem to be all one.

Consult, ransack y^r^ understanding. W^t^ find you there besides several perceptions or thoughts? W^t^ mean you by the word mind? You must mean something that you perceive, or y^t^ you do not perceive. A thing not perceived is a contradiction. To mean (also) a thing you do not perceive is a contradiction. We are in all this matter strangely abused by words.

Mind is a congeries of perceptions[4]. Take away per-

[1] This 'First Book' seems to be 'Part I' of the projected *Principles*—the only Part ever published. Here he inclines to 'perception or thought in general,' in the language of Descartes; but in the end he approximates to Locke's 'sensation and reflection.' See *Principles*, sect. 1, and notes.

[2] Does he mean, like Hume afterwards, that ideas or phenomena constitute the ego, so that I am only the transitory conscious state of each moment?

[3] 'Consciousness'—a term rarely used by Berkeley or his contemporaries.

[4] This too, if strictly interpreted,

ceptions and you take away the mind. Put the perceptions and you put the mind.

Say you, the mind is not the perception, not that thing which perceives. I answer, you are abused by the words 'that a thing.' These are vague and empty words with us.

S. The having ideas is not the same thing with perception. A man may have ideas when he only imagines. But then this imagination presupposeth perception.

M. That w^ch^ extreamly strengthens us in prejudice is y^t^ we think we see an empty space, which I shall demonstrate to be false in the Third Book [1].

There may be demonstrations used even in Divinity. I mean in revealed Theology, as contradistinguish'd from natural; for tho' the principles may be founded in faith, yet this hinders not but that legitimate demonstrations might be built thereon; provided still that we define the words we use, and never go beyond our ideas. Hence 'twere no very hard matter for those who hold episcopacy or monarchy to be established *jure Divino* to demonstrate their doctrines if they are true. But to pretend to demonstrate or reason anything about the Trinity is absurd. Here an implicit faith becomes us.

S. Qu. if there be any real difference betwixt certain ideas of reflection & others of sensation, e. g. betwixt perception and white, black, sweet, &c.? Wherein, I pray you, does the perception of white differ from white men * * *

I shall demonstrate all my doctrines. The nature of demonstration to be set forth and insisted on in the Introduction [2]. In that I must needs differ from Locke, forasmuch as he makes all demonstration to be about abstract ideas, w^ch^ I say we have not nor can have.

S. The understanding seemeth not to differ from its perceptions or ideas. Qu. What must one think of the will and passions?

E. A good proof that Existence is nothing without or

looks like an anticipation of Hume's reduction of the ego into successive 'impressions'—'nothing but a bundle or collection of different perceptions, which succeed one another with inconceivable rapidity, and are in a perpetual flux and movement.' See Hume's *Treatise*, Part IV. sect. 6.

[1] What 'Third Book' is here projected? Was a 'Third Part' of the *Principles* then in embryo?

[2] This is scarcely done in the 'Introduction' to the *Principles*.

distinct from perception, may be drawn from considering a man put into the world without company[1].

E. There was a smell, i.e. there was a smell perceiv'd. Thus we see that common speech confirms my doctrine.

T. No broken intervals of death or annihilation. Those intervals are nothing; each person's time being measured to him by his own ideas.

I. We are frequently puzzl'd and at a loss in obtaining clear and determin'd meanings of words commonly in use, & that because we imagine words stand for abstract general ideas which are altogether inconceivable.

I. 'A stone is a stone.' This a nonsensical proposition, and such as the solitary man[1] would never think on. Nor do I believe he would ever think on this: 'The whole is equal to its parts,' &c.

E. Let it not be said that I take away existence. I only declare the meaning of the word, so far as I can comprehend it.

I. If you take away abstraction, how do men differ from beasts? I answer, by shape, by language. Rather by degrees of more and less.

Wt means Locke by inferences in words, consequences of words, as something different from consequences of ideas? I conceive no such thing.

I. N. B. Much complaint about the imperfection of language[2].

M. But perhaps some man may say, an inert thoughtless Substance may exist, though not extended, moved, &c., but with other properties whereof we have no idea. But even this I shall demonstrate to be impossible, wn I come to treat more particularly of Existence.

Will not rightly distinguish'd from Desire by Locke—it seeming to superadd nothing to the idea of an action, but the uneasiness for its absence or non-existence.

S. Mem. To enquire diligently into that strange mistery,

[1] Berkeley, as we find in the *Commonplace Book*, is fond of conjecturing how a man all alone in the world, freed from the abstractions of language, would apprehend the realities of existence, which he must then face directly, without the use or abuse of verbal symbols.

[2] This 'N.B.' is expanded in the Introduction to the *Principles*.

viz. How it is that I can cast about, think of this or that man, place, action, w^n^ nothing appears to introduce them into my thoughts, w^n^ they have no perceivable connexion with the ideas suggested by my senses at the present?

I. 'Tis not to be imagin'd w^t^ a marvellous emptiness & scarcity of ideas that man shall descry who will lay aside all use of words in his meditations.

M. Incongruous in Locke to fancy we want a sense proper to see substances with.

I. Locke owns that abstract ideas were made in order to naming.

M. The common errour of the opticians, that we judge of distance by angles[1], strengthens men in their prejudice that they see things without and distant from their mind.

E. I am persuaded, would men but examine w^t^ they mean by the word existence, they wou'd agree with me.

c. 20. s. 8. b. 4. of Locke makes for me against the mathematicians.

M. The supposition that things are distinct from ideas takes away all real truth, & consequently brings in a universal scepticism; since all our knowledge and contemplation is confin'd barely to our own ideas[2].

I. Qu. whether the solitary man would not find it necessary to make use of words to record his ideas, if not in memory or meditation, yet at least in writing—without which he could scarce retain his knowledge.

We read in history there was a time when fears and jealousies, privileges of parliament, malignant party, and such like expressions of too unlimited and doubtful a meaning, were words of much sway. Also the words Church, Whig, Tory, &c., contribute very much to faction and dispute.

S. The distinguishing betwixt an idea and perception of the idea has been one great cause of imagining material substances[3].

S. That God and blessed spirits have Will is a manifest

[1] Cf. *Essay on Vision*, sect. 4.

[2] What is immediately realised in our percipient experience must be presumed or trusted in as real, if we have any hold of reality, or the moral right to postulate that our universe is fundamentally trustworthy.

[3] But he distinguishes, in the *Principles* and elsewhere, between an idea of sense and a percipient ego.

argument against Locke's proofs that the Will cannot be conceiv'd, put into action, without a previous uneasiness.

S. The act of the Will, or volition, is not uneasiness, for that uneasiness may be without volition.

S. Volition is distinct from the object or idea for the same reason.

S. Also from uneasiness and idea together.

The understanding not distinct from particular perceptions or ideas.

The Will not distinct from particular volitions.

S. It is not so very evident that an idea, or at least uneasiness, may be without all volition or act.

The understanding taken for a faculty is not really distinct from y^e^ will.

This allow'd hereafter.

S. To ask whether a man can will either side is an absurd question, for the word *can* presupposes volition.

N. Anima mundi, substantial form, omniscient radical heat, plastic vertue, Hylaschic principle—all these vanish [1].

M. Newton proves that gravity is proportional to gravity. I think that's all [2].

Qu. whether it be the vis inertiæ that makes it difficult to move a stone, or the vis attractivæ, or both, or neither?

Mem. To express the doctrines as fully and copiously and clearly as may be. Also to be full and particular in answering objections [3].

S. To say y^e^ Will is a power; [therefore] volition is an act. This is idem per idem.

W^t^ makes men despise extension, motion, &c., & separate them from the essence of the soul, is that they imagine them to be distinct from thought, and to exist in unthinking substance.

[1] They reappear in *Siris*.

[2] In one of Berkeley's letters to Johnson, a quarter of a century after the *Commonplace Book*, when he was in America, he observes that 'the mechanical philosophers pretend to demonstrate that matter is proportional to gravity. But their argument concludes nothing, and is a mere circle'—as he proceeds to show.

[3] In the *Principles*, sect. 1–33, he seeks to fulfil the expository part of this intention; in sect. 33–84, also in the *Dialogues between Hylas and Philonous*, he is 'particular in answering objections.'

An extended may have passive modes of thinking good actions.

There might be idea, there might be uneasiness, there might be the greatest uneasiness wthout any volition, therefore the * * *

M. Matter once allow'd, I defy any man to prove that God is not Matter[1].

S. Man is free. There is no difficulty in this proposition, if we but settle the signification of the word *free*—if we had an idea annext to the word free, and would but contemplate that idea.

S. We are imposed on by the words will, determine, agent, free, can, &c.

S. Uneasiness precedes not every volition. This evident by experience.

S. Trace an infant in the womb. Mark the train & succession of its ideas. Observe how volition comes into the mind. This may perhaps acquaint you with its nature.

S. Complacency seems rather to determine, or precede, or coincide wth & constitute the essence of volition, than uneasiness.

S. You tell me, according to my doctrine a man is not free. I answer, tell me w^{t} you mean by the word free, and I shall resolve you[2].

N. Qu. W^{t} do men mean when they talk of one body's touching another? I say you never saw one body touch, or (rather) I say, I never saw one body that I could say touch'd this or that other; for that if my optiques were improv'd, I should see intervalls and other bodies behind those wh^{ch} now seem to touch.

Mem. Upon all occasions to use the utmost modesty—to confute the mathematicians wth the utmost civility & respect, not to style them Nihilarians, &c.

N.B. To rein in y^{e} satyrical nature.

Blame me not if I use my words sometimes in some latitude. 'Tis w^{t} cannot be helpt. 'Tis the fault of language

[1] If Matter is arbitrarily credited with omnipotence.

[2] On freedom as implied in a moral and responsible agent, cf. *Siris*, sect. 257 and note.

that you cannot always apprehend the clear and determinate meaning of my words.

Say you, there might be a thinking Substance—something unknown—wch perceives, and supports, and ties together the ideas[1]. Say I, make it appear there is any need of it and you shall have it for me. I care not to take away anything I can see the least reason to think should exist.

I affirm 'tis manifestly absurd—no excuse in the world can be given why a man should use a word without an idea[2]. Certainly we shall find that wt ever word we make use of in matter of pure reasoning has, or ought to have, a compleat idea[2] annext to it, i.e. its meaning, or the sense we take it in, must be compleatly known.

'Tis demonstrable a man can never be brought to imagine anything should exist whereof he has no idea. Whoever says he does, banters himself with words.

G. We imagine a great difference & distance in respect of knowledge, power, &c., betwixt a man & a worm. The like difference betwixt man and God may be imagin'd; or infinitely greater[3] difference.

G. We find in our own minds a great number of different ideas. We may imagine in God a greater number, i. e. that ours in number, or the number of ours, is inconsiderable in respect thereof. The words difference and number, old and known, we apply to that wch is unknown. But I am embrangled[4] in words—'tis scarce possible it should be otherwise.

The chief thing I do or pretend to do is onely to remove the mist or veil of words[5]. This has occasion'd ignorance & confusion. This has ruined the schoolmen and mathematicians, lawyers and divines.

S. The grand cause of perplexity & darkness in treating of the Will, is that we imagine it to be an object of thought: (to speak with the vulgar), we think we may perceive, contemplate, and view it like any of our ideas; whereas in

[1] Is not this one way of expressing the Universal Providence and constant uniting agency of God in the material world?

[2] Here *idea* seems to be used in its wider signification, including *notion*.

[3] 'infinitely greater'—Does infinity admit of imaginable degrees?

[4] 'embrangled'—perplexed—involved in disputes.

[5] See *Principles*, Introduction, sect. 24.

truth 'tis no idea, nor is there any idea of it. 'Tis *toto cœlo* different from the understanding, i. e. from all our ideas. If you say the Will, or rather volition, is something, I answer, there is an homonymy[1] in the word *thing*, w^n^ apply'd to ideas and volition and understanding and will. All ideas are passive[2].

S. Thing & idea are much what words of the same extent and meaning. Why, therefore, do I not use the word thing? Ans. Because thing is of greater latitude than idea. Thing comprehends also volitions or actions. Now these are no ideas[2].

S. There can be perception w^th^out volition. Qu. whether there can be volition without perception?

E. Existence not conceivable without perception or volition —not distinguish'd therefrom.

T. N.B. Several distinct ideas can be perceived by sight and touch at once. Not so by the other senses. 'Tis this diversity of sensations in other senses chiefly, but sometimes in touch and sight (as also diversity of volitions, whereof there cannot be more than one at once, or rather, it seems there cannot, for of that I doubt), gives us the idea of time—or *is* time itself.

W^t^ would the solitary man think of number?

S. There are innate ideas, i. e. ideas created with us[3].

S. Locke seems to be mistaken w^n^ he says thought is not essential to the mind[4].

S. Certainly the mind always and constantly thinks: and we know this too. In sleep and trances the mind *exists not* —there is no time, no succession of ideas[5].

S. To say the mind exists without thinking is a contradiction, nonsense, nothing.

S. Folly to inquire w^t^ determines the Will. Uneasiness, &c. are ideas, therefore unactive, therefore can do nothing, therefore cannot determine the Will[6].

[1] 'homonymy,' i.e. equivocation.

[2] Voluntary or responsible activity is not an idea or datum of sense, nor can it be realised in sensuous imagination. He uses 'thing' in the wide meaning which comprehends persons.

[3] Is this consistent with other entries?

[4] *Essay*, Bk. II. ch. i. sect. 9-19.

[5] This is one way of meeting the difficulty of supposed interruptions of conscious or percipient activity.

[6] This seems to imply that volun-

S. Again, w^t^ mean you by determine ?

N. T. For want of rightly understanding time, motion, existence, &c., men are forc'd into such absurd contradictions as this, viz. light moves 16 diameters of earth in a second of time.

S. 'Twas the opinion that ideas could exist unperceiv'd, or before perception, that made men think perception[1] was somewhat different from the idea perceived, i.e. y^t^ it was an idea of reflection ; whereas the thing perceiv'd was an idea of sensation. I say, 'twas this made 'em think the understanding took it in, receiv'd it from without ; w^ch^ could never be did not they think it existed without[2].

M. Properly speaking, idea is the picture of the imagination's making. This is y^e^ likeness of, and refer'd to the real idea, or (if you will) thing[3].

S. To ask, have we an idea of Will or volition, is nonsense. An idea can resemble nothing but an idea.

S. If you ask w^t^ thing it is that wills, I answer, if you mean idea by the word thing, or anything like any idea, then I say, 'tis no thing at all that wills[4]. This how extravagant soever it may seem, yet is a certain truth. We are cheated by these general terms, thing, is, &c.

S. Again, if by is you mean is perceived, or does perceive, I say nothing w^ch^ is perceived or does perceive wills.

S. The referring ideas to things w^ch^ are not ideas, the using the term 'idea of[5],' is one great cause of mistake, as in other matters, so also in this.

S. Some words there are w^ch^ do not stand for ideas, viz. particles, will, &c. Particles stand for volitions and their concomitant ideas.

S. There seem to be but two colours w^ch^ are simple ideas, viz. those exhibited by the most and least refrangible rays ; [the others], being the intermediate ones, may be formed by composition.

tary action is mysteriously self-originated.

[1] 'perception.' He does not include the percipient.

[2] 'without,' i.e. unrealised by any percipient.

[3] This would make *idea* the term only for what is imagined, as distinguished from what is perceived in sense.

[4] In a strict use of words, only *persons* exercise will—not *things*.

[5] As we must do in imagination, which (unlike sense) is representative; for the mental images represent original data of sense-perception.

S. I have no idea of a volition or act of the mind, neither has any other intelligence; for that were a contradiction.

N. B. Simple ideas, viz. colours, are not devoid of all sort of composition, tho' it must be granted they are not made up of distinguishable ideas. Yet there is another sort of composition. Men are wont to call those things compounded in which we do not actually discover the component ingredients. Bodies are said to be compounded of chymical principles, which, nevertheless, come not into view till after the dissolution of the bodies—w^ch were not, could not, be discerned in the bodies whilst remaining entire.

I. All our knowledge is about particular ideas, according to Locke. All our sensations are particular ideas, as is evident. W^t use then do we make of abstract general ideas, since we neither know nor perceive them?

S. 'Tis allow'd that particles stand not for ideas, and yet they are not said to be empty useless sounds. The truth really is, they stand for operations of the mind, i. e. volitions.

Mo. Locke says all our knowledge is about particulars. If so, pray w^t is the following ratiocination but a jumble of words? 'Omnis homo est animal; omne animal vivit: ergo omnis homo vivit.' It amounts (if you annex particular ideas to the words 'animal' and 'vivit') to no more than this: 'Omnis homo est homo; omnis homo est homo: ergo, omnis homo est homo.' A mere sport and trifling with sounds.

Mo. We have no ideas of vertues & vices, no ideas of moral actions[1]. Wherefore it may be question'd whether we are capable of arriving at demonstration about them[2], the morality consisting in the volition chiefly.

E. Strange it is that men should be at a loss to find their idea of Existence; since that (if such there be distinct from perception) it is brought into the mind by all the ways of sensation and reflection[3], methinks it should be most familiar to us, and we best acquainted with it.

[1] Does he not allow that we have *meaning*, if not *ideas*, when we use the terms virtue and vice and moral action?

[2] As Locke says we are.

[3] '*Existence* and *unity* are ideas that are suggested to the understanding by every object without

E. This I am sure, I have no idea of Existence[1], or annext to the word Existence. And if others have that's nothing to me; they can never make me sensible of it; simple ideas being incommunicable by language.

S. Say you, the unknown substratum of volitions & ideas is something whereof I have no idea. I ask, Is there any other being which has or can have an idea of it? If there be, then it must be itself an idea; which you will think absurd.

S. There is somewhat active in most perceptions, i. e. such as ensue upon our volitions, such as we can prevent and stop: e. g. I turn my eyes toward the sun: I open them. All this is active.

S. Things are twofold—active or inactive. The existence of active things is to act; of inactive to be perceiv'd.

S. Distinct from or without perception there is no volition;
E. therefore neither is there existence without perception.

G. God may comprehend all ideas, even the ideas w^{ch} are painfull & unpleasant, without being in any degree pained thereby[2]. Thus we ourselves can imagine the pain of a burn, &c. without any misery or uneasiness at all.

N. Truth, three sorts thereof—natural, mathematical, &
Mo. moral.

Mo. Agreement of relation onely where numbers do obtain: of co-existence, in nature: of signification, by including, in morality.

I. Gyant who shakes the mountain that's on him must be acknowledged. Or rather thus: I am no more to be reckon'd stronger than Locke than a pigmy should be reckon'd stronger than a gyant, because he could throw off the molehill w^{ch} lay upon him, and the gyant could onely shake or shove the mountain that oppressed him. This in the Preface.

I. Promise to extend our knowledge & clear it of those shamefull contradictions which embarrass it. Something like this to begin the Introduction in a modest way[3].

and every idea within. When ideas are in our minds, we consider that *they* exist.' Locke's *Essay*, Bk. II. ch. 7. sect. 7.

[1] i. e. of Existence in the abstract —unperceived and unperceiving— realised neither in percipient life nor in moral action.

[2] This suggests that God knows sensible things without being sentient of any.

[3] Cf. *Principles*, Introd., sect. 1–5.

I. Whoever shall pretend to censure any part, I desire he would read out the whole, else he may perhaps not understand me. In the Preface or Introduction [1].

S. Doctrine of identity best explain'd by taking the Will for volitions, the Understanding for ideas. The difficulty of consciousness of w^t^ are never acted surely solv'd thereby.

I. I must acknowledge myself beholding to the philosophers who have gone before me. They have given good rules, though certainly they do not always observe them. Similitude of adventurers, who, tho' they attained not the desired port, they by their wrecks have made known the rocks and sands, whereby the passage of aftercomers is made more secure & easy. Preface or Introduction.

Mo. The opinion that men had ideas of moral actions [2] has render'd the demonstrating ethiques very difficult to them.

S. An idea being itself unactive cannot be the resemblance or image of an active thing.

I. Excuse to be made in the Introduction for using the word *idea*, viz. because it has obtain'd. But a caution must be added.

Scripture and possibility are the onely proofs [3] with Malbranch. Add to these what he calls a great propension to think so: this perhaps may be questioned. Perhaps men, if they think before they speak, will not be found so thoroughly persuaded of the existence of Matter [3].

M. On second thoughts I am on t'other extream. I am certain of that w^ch^ Malbranch seems to doubt of, viz. the existence of bodies [4].

I. &c. Mem. To bring the killing blow at the last, e.g. in the matter of abstraction to bring Locke's general triangle in the last [5].

I. They give good rules, tho' perhaps they themselves do not always observe them. They speak much of clear and distinct ideas, though at the same time they talk of general abstract ideas, &c. I'll [instance] in Locke's opinion of abstraction, he being as clear a writer as I have met with.

[1] Cf. Preface to *Principles*; also to *Dialogues*.

[2] i.e. that ethics was a science of phenomena or ideas.

[3] i.e. of the *independent* existence of Matter.

[4] 'bodies'—i.e. sensible things—not unrealised Matter.

[5] Cf. *Principles*, Introduction, sect. 13.

Such was the candour of this great man that I perswade myself, were he alive[1], he would not be offended that I differ from him: seeing that even in so doing I follow his advice, viz. to use my own judgement, see with my own eyes, & not with another's. Introduction.

S. The word thing, as comprising or standing for idea & volition, usefull; as standing for idea and archetype without the mind[2], mischievous and useless.

Mo. To demonstrate morality it seems one need only make a dictionary of words, and see which included which. At least, this is the greatest part and bulk of the work.

Mo. Locke's instances of demonstration in morality are, according to his own rule, trifling propositions.

P. S. Qu. How comes it that some ideas are confessedly allow'd by all to be onely in the mind[3], and others as generally taken to be without the mind[4], if, according to you, all are equally and only in the mind? Ans. Because that in proportion to pleasure or pain ideas are attended with desire, exertion, and other actions which include volition. Now volition is by all granted to be in spirit.

I. If men would lay aside words in thinking, 'tis impossible they should ever mistake, save only in matters of fact. I mean it seems impossible they should be positive & secure that anything was true w^ch^ in truth is not so. Certainly I cannot err in matter of simple perception. So far as we can in reasoning go without the help of signs, there we have certain knowledge. Indeed, in long deductions made by signs there may be slips of memory.

Mo. From my doctrine there follows a cure for pride. We are only to be praised for those things which are our own, or of our own doing; natural abilitys are not consequences of our volitions.

M. Mem. Candidly to take notice that Locke holds some dangerous opinions; such as the infinity and eternity of Space and the possibility of Matter's thinking[5].

[1] Locke died in October, 1704.

[2] 'without the mind,' i. e. abstracted from all active percipient life.

[3] e. g. secondary qualities of sensible things, in which pleasure and pain are prominent.

[4] e. g. primary qualities, in which pleasure and pain are latent.

[5] See Locke's *Essay*, Bk. II. ch. 13. § 21, ch. 17. § 4; also Bk. IV. ch. 3. § 6; also his controversy with Bishop Stillingfleet regarding the possibility of Matter thinking.

I. Once more I desire my reader may be upon his guard against the fallacy of words. Let him beware that I do not impose on him by plausible empty talk, that common dangerous way of cheating men into absurditys. Let him not regard my words any otherwise than as occasions of bringing into his mind determin'd significations. So far as they fail of this they are gibberish, jargon, & deserve not the name of language. I desire & warn him not to expect to find truth in my book, or anywhere but in his own mind. W^tever I see myself 'tis impossible I can paint it out in words.

Mo. N.B. To consider well w^t is meant by that w^ch Locke saith concerning algebra—that it supplys intermediate ideas. Also to think of a method affording the same use in morals &c. that this doth in mathematiques.

Mo. *Homo* is not proved to be *vivens* by means of any intermediate idea. I don't fully agree w^th Locke in w^t he says concerning sagacity in finding out intermediate ideas in matter capable of demonstration & the use thereof; as if that were the onely means of improving and enlarging demonstrative knowledge.

S. There is a difference betwixt power & volition. There may be volition without power. But there can be no power without volition. Power implyeth volition, & at the same time a connotation of the effects following the volition[1].

M. We have assuredly an idea of substance. 'Twas absurd
S. of Locke[2] to think we had a name without a meaning. This might prove acceptable to the Stillingfleetians.

M. The substance of Body we know[3]. The substance of
S. Spirit we do not know—it not being knowable, it being a *purus actus*.

I. Words have ruin'd and overrun all the sciences—law, physique, chymistry, astrology, &c.

I. Abstract ideas only to be had amongst the learned. The vulgar never think they have any such, nor truly do they find any want of them. Genera & species & abstract ideas are terms unknown to them.

With Berkeley real space is a finite creature, dependent for realisation on living percipient Spirit.

[1] But what of the origination of the volition itself?

[2] *Essay*, Bk. I. ch. iv. § 18. See also Locke's *Letters* to Stillingfleet.

[3] It is, according to Berkeley, the steady union or co-existence of a group of sense-phenomena.

S. Locke's out[1]—the case is different. We can have an idea of body without motion, but not of soul without thought.

Mo. God ought to be worship'd. This easily demonstrated when once we ascertain the signification of the words God, worship, ought.

S. No perception, according to Locke, is active. Therefore no perception (i. e. no idea) can be the image of, or like unto, that which is altogether active & not at all passive, i. e. the Will.

S. I can will the calling to mind something that is past, tho' at the same time that w^ch^ I call to mind was not in my thoughts before that volition of mine, & consequently I could have had no uneasiness for the want of it.

S. The Will & the Understanding may very well be thought two distinct beings.

S. Sed quia voluntas raro agit nisi ducente desiderio. V. Locke, Epistles, p. 479, ad Limburgum.

You cannot say the m. t. [minimum tangibile] is like or one with the m. v. [minimum visibile], because they be both minima, just perceiv'd, and next door to nothing. You may as well say the m. t. is the same with or like unto a sound, so small that it is scarce perceiv'd.

Extension seems to be a mode of some tangible or sensible quality according as it is seen or felt.

S. The spirit—the active thing—that w^ch^ is soul, & God—is the Will alone. The ideas are effects—impotent things.

S. The concrete of the will & understanding I might call mind; not person, lest offence be given. Mem. Carefully to omit defining of person, or making much mention of it.

S. You ask, do these volitions make *one* Will? W^t^ you ask is meerly about a word—unity being no more[2].

N. B. To use utmost caution not to give the least handle of offence to the Church or Churchmen.

[1] *Essay*, Bk. II. ch. i. § 10—where he argues for interruptions of consciousness. 'Men think not always.'

[2] In other words, the material world is wholly impotent: all activity in the universe is spiritual.

I. Even to speak somewhat favourably of the Schoolmen, and shew that they who blame them for jargon are not free of it themselves. Introd.

Locke's great oversight seems to be that he did not begin with his third book; at least that he had not some thought of it at first. Certainly the 2d & 4th books don't agree wth wt he says in ye 3d [1].

M. If Matter[2] is once allow'd to exist, clippings of weeds and parings of nails may think, for ought that Locke can tell; tho' he seems positive of the contrary.

Since I say men cannot mistake in short reasoning about things demonstrable, if they lay aside words, it will be expected this Treatise will contain nothing but wt is certain & evident demonstration, & in truth I hope you will find nothing in it but what is such. Certainly I take it all for such. Introd.

I. When I say I will reject all propositions wherein I know not fully and adequately and clearly, so far as knowable, the thing meant thereby, this is not to be extended to propositions in the Scripture. I speak of matters of Reason and Philosophy—not Revelation. In this I think an humble, implicit faith becomes us (when we cannot comprehend or understand the proposition), such as a popish peasant gives to propositions he hears at mass in Latin. This proud men may call blind, popish, implicit, irrational. For my part I think it is more irrational to pretend to dispute at, cavil, and ridicule holy mysteries, i. e. propositions about things that are altogether above our knowledge, out of our reach. When I shall come to plenary knowledge of the meaning of any fact, then I shall yield an explicit belief. Introd.

Complexation of ideas twofold. Ys refers to colours being complex ideas.

Considering length without breadth is considering any length, be the breadth wt it will.

M. I may say earth, plants, &c. were created before man—there being other intelligences to perceive them, before man was created [3].

[1] On the order of its four books and the structure of Locke's *Essay*, see the Prolegomena in my edition of the *Essay*, pp. liv-lviii.

[2] i. e. independent imperceptible Matter.

[3] What of the earliest geological periods, asks Ueberweg? But

M. There is a philosopher[1] who says we can get an idea of substance by no way of sensation or reflection, & seems to imagine that we want a sense proper for it. Truly if we had a new sense it could only give us a new idea. Now I suppose he will not say substance, according to him, is an idea. For my part, I own I have no idea can stand for substance in his and the Schoolmen's sense of that word. But take it in the common vulgar sense, & then we see and feel substance.

E. N.B. That not common usage, but the Schoolmen coined the word Existence, supposed to stand for an abstract general idea.

Writers of Optics mistaken in their principles both in judging of magnitudes and distances.

I. 'Tis evident y^{t} w^{n} the solitary man should be taught to speak, the words would give him no other new ideas (save only the sounds, and complex ideas which, tho' unknown before, may be signified by language) beside w^{t} he had before. If he had not, could not have, an abstract idea before, he cannot have it after he is taught to speak.

Mo. 'Homo est homo,' &c. comes at last to Petrus est Petrus, &c. Now, if these identical propositions are sought after in the mind, they will not be found. There are no identical mental propositions. 'Tis all about sounds and terms.

Mo. Hence we see the doctrine of certainty by ideas, and proving by intermediate ideas, comes to nothing[2].

Mo. We may have certainty & knowledge without ideas, i.e. without other ideas than the words, and their standing for one idea, i.e. their being to be used indifferently.

Mo. It seems to me that we have no certainty about ideas, but only about words. 'Tis improper to say, I am certain I see, I feel, &c. There are no mental propositions

is there greater difficulty in such instances than in explaining the existence of a table or a house, while one is merely seeing, without touching?

[1] Locke explains 'substance' as 'an uncertain supposition of we know not what.' *Essay*, Bk. I. ch. 4. § 18.

[2] Locke makes certainty consist in the agreement of 'our ideas with the reality of things.' See *Essay*, Bk. IV. ch. 4. § 18. Here the sceptical difficulty arises, which Berkeley meets under his Principle. If we have no perception of reality, we cannot compare our ideas with it, and so cannot have any criterion of reality.

form'd answering to these words, & in simple perception 'tis allowed by all there is no affirmation or negation, and consequently no certainty[1].

Mo. The reason why we can demonstrate so well about signs is, that they are perfectly arbitrary & in our power—made at pleasure.

Mo. The obscure ambiguous term *relation*, which is said to be the largest field of knowledge, confounds us, deceives us.

Mo. Let any man shew me a demonstration, not verbal, that does not depend on some false principle; or at best on some principle of nature, which is y^e^ effect of God's will, and we know not how soon it may be changed.

I. Qu. What becomes of the *æternæ veritates?* Ans. They vanish[2].

I. But, say you, I find it difficult to look beneath the words and uncover my ideas. Say I, Use will make it easy. In the sequel of my Book the cause of this difficulty shall be more clearly made out.

I. To view the deformity of error we need onely undress it.

E. 'Cogito ergo sum.' Tautology. No mental proposition answering thereto.

N. Knowledge, or certainty, or perception of agreement of
Mo. ideas—as to identity and diversity, and real existence, vanisheth; of relation, becometh merely nominal; of co-existence, remaineth. Locke thought in this latter our knowledge was little or nothing. Whereas in this only real knowledge seemeth to be found[3].

P. We must w^th^ the mob place certainty in the senses[4].

'Tis a man's duty, 'tis the fruit of friendship, to speak well of his friend. Wonder not therefore that I do w^t^ I do.

I. A man of slow parts may overtake truth, &c. Introd. Even my shortsightedness might perhaps be aiding to me in this matter—'twill make me bring the object nearer to my thoughts. A purblind person, &c. Introd.

[1] [This seems wrong. Certainty, real certainty, is of sensible ideas. I may be certain without affirmation or negation.—AUTHOR.] This needs further explanation.

[2] This entry and the preceding tends to resolve all judgments which are not what Kant calls analytical into contingent.

[3] See Locke's *Essay*, Bk. IV. ch. 1, §§ 3-7, and ch. 3. §§ 7-21. The stress Berkeley lays on 'co-existence' is significant.

[4] i. e. we must not doubt the reality of the immediate data of sense but accept it, as 'the mob' do.

S. Locke to Limborch, &c. Talk of *judicium intellectus* preceding the volition: I think *judicium* includes volition. I can by no means distinguish these—*judicium, intellectus, indifferentia,* uneasiness to many things accompanying or preceding every volition, as e. g. the motion of my hand.

S. Qu. W^t^ mean you by my perceptions, my volitions? Both all the perceptions I perceive or conceive[1], &c. are mine; all the volitions I am conscious to are mine.

S. Homo est agens liberum. What mean they by *homo* and *agens* in this place?

E. Will any man say that brutes have ideas of Unity & Existence? I believe not. Yet if they are suggested by all the ways of sensation, 'tis strange they should want them[2].

I. It is a strange thing and deserves our attention, that the more time and pains men have consum'd in the study of philosophy, by so much the more they look upon themselves to be ignorant & weak creatures. They discover flaws and imperfections in their faculties w^ch^ other men never spy out. They find themselves under a necessity of admitting many inconsistent, irreconcilable opinions for true. There is nothing they touch with their hand, or behold with their eyes, but has its dark sides much larger and more numerous than w^t^ is perceived, & at length turn scepticks, at least in most things. I imagine all this proceeds from, &c. Exord. Introd.[3]

I. These men with a supercilious pride disdain the common single information of sense. They grasp at knowledge by sheafs & bundles. ('Tis well if, catching at too much at once, they hold nothing but emptiness & air.) They in the depth of their understanding contemplate abstract ideas.

It seems not improbable that the most comprehensive & sublime intellects see more m.v.'s at once, i. e. that their visual systems are the largest.

Words (by them meaning all sorts of signs) are so necessary that, instead of being (w^n^ duly us'd or in their own nature) prejudicial to the advancement of knowledge,

[1] But is imagination different from actual perception only in *degree* of reality?

[2] Cf. *Principles,* sect. 13, 120; also Locke's *Essay,* Bk. II. ch. 7. sect. 7.

[3] Cf. *Principles,* Introduction, sect. 1.

or an hindrance to knowledge, without them there could in mathematiques themselves be no demonstration.

Mem. To be eternally banishing Metaphisics, &c., and recalling men to Common Sense [1].

S. We cannot conceive other minds besides our own but as so many selves. We suppose ourselves affected wth such & such thoughts & such and such sensations [2].

S. Qu. whether composition of ideas be not that faculty which chiefly serves to discriminate us from brutes? I question whether a brute does or can imagine a blue horse or chimera.

Naturalists do not distinguish betwixt cause and occasion. Useful to enquire after co-existing ideas or occasions.

Mo. Morality may be demonstrated as mixt mathematics.

S. Perception is passive, but this not distinct from idea. Therefore there can be no idea of volition.

Algebraic species or letters are denominations of denominations. Therefore Arithmetic to be treated of before Algebra.

2 crowns are called ten shillings. Hence may appear the value of numbers.

Complex ideas are the creatures of the mind. Hence may appear the nature of numbers. This to be deeply discuss'd.

I am better informed & shall know more by telling me there are 10,000 men, than by shewing me them all drawn up. I shall better be able to judge of the bargain you'd have me make w^{n} you tell me how much (i. e. the name of y^{e}) money lies on the table, than by offering and shewing it without naming. I regard not the idea, the looks, but the names. Hence may appear the nature of numbers.

Children are unacquainted with numbers till they have made some progress in language. This could not be if they were ideas suggested by all the senses.

[1] Berkeley's aim evidently is to deliver men from empty abstractions, by a return to more reasonably interpreted common-sense.

[2] The sort of *external* world that is intelligible to us is that of which *another person* is percipient, and which is *objective* to me, in a percipient experience foreign to mine.

Numbers are nothing but names—never words.

Mem. Imaginary roots—to unravel that mystery.

Ideas of utility are annexed to numbers.

In arithmetical problems men seek not any idea of number. They only seek a denomination. This is all can be of use to them.

Take away the signs from Arithmetic and Algebra, and pray w^t^ remains?

These are sciences purely verbal, and entirely useless but for practice in societies of men. No speculative knowledge, no comparing of ideas in them[1].

Qu. whether Geometry may not properly be reckon'd amongst the mixt mathematics—Arithmetic & Algebra being the only abstracted pure, i.e. entirely nominal—Geometry being an application of these to points[2]?

Mo. Locke of Trifling Propositions. [b. 4. c. 8] Mem. Well to observe & con over that chapter.

E. Existence, Extension, &c. are abstract, i.e. no ideas. They are words, unknown and useless to the vulgar.

Mo. Sensual pleasure is the *summum bonum*. This the great principle of morality. This once rightly understood, all the doctrines, even the severest of the Gospels, may clearly be demonstrated.

Mo. Sensual pleasure, quâ pleasure, is good & desirable by a wise man[3]. But if it be contemptible, 'tis not quâ pleasure but quâ pain, or cause of pain, or (which is the same thing) of loss of greater pleasure.

I. W^n^ I consider, the more objects we see at once the more distant they are, and that eye which beholds a great many things can see none of them near.

I. By *idea* I mean any sensible or imaginable thing[4].

M. S. To be sure or certain of w^t^ we do not actually perceive[5] (I say perceive, not imagine), we must not be altogether

[1] Cf. Berkeley's *Arithmetica* and *Miscellanea Mathematica*, published while he was making his entries in this *Commonplace Book*.

[2] Minima sensibilia?

[3] Pleasures, *quâ* pleasures, are natural causes of correlative desires, as pains or uneasinesses are of correlative aversions. This is implied in the very nature of pleasure and pain.

[4] Here we have his explanation of *idea*.

[5] Absent things.

passive; there must be a disposition to act; there must be assent, w^ch^ is active. Nay, what do I talk; there must be actual volition.

What do we demonstrate in Geometry but that lines are equal or unequal? i. e. may not be called by the same name [1].

I. M. I approve of this axiom of the Schoolmen, 'Nihil est in intellectu quod non prius fuit in sensu.' [2] I wish they had stuck to it. It had never taught them the doctrine of abstract ideas.

S. G. 'Nihil dat quod non habet,' or, the effect is contained in the cause, is an axiom I do not understand or believe to be true.

E. Whoever shall cast his eyes on the writings of old or new philosophers, and see the noise is made about formal and objective Being, Will, &c.

G. Absurd to argue the existence of God from his idea. We have no idea of God. 'Tis impossible [3].

M. E. Cause of much errour & confusion that men knew not what was meant by Reality [4].

I. Des Cartes, in Med. 2, says the notion of this particular wax is less clear than that of wax in general; and in the same Med., a little before, he forbears to consider bodies in general, because (says he) these general conceptions are usually confused.

M. S. Des Cartes, in Med. 3, calls himself a thinking substance, and a stone an extended substance; and adds that they both agree in this, that they are substances. And in the next paragraph he calls extension a mode of substance.

S. 'Tis commonly said by the philosophers, that if the soul of man were self-existent it would have given itself all possible perfection. This I do not understand.

[1] Here, as elsewhere, he resolves geometry, as strictly demonstrable, into a reasoned system of analytical or verbal propositions.

[2] Compare this with note 3, p. 34; also with the contrast between Sense and Reason, in *Siris*. Is the statement consistent with implied assumptions even in the *Principles*, apart from which they could not cohere?

[3] To have an *idea* of God—as Berkeley uses idea—would imply that God is an immediately perceptible, or at least an imaginable object.

[4] Cf. *Principles*, sect. 89.

Mo. Mem. To excite men to the pleasures of the eye & the ear, which surfeit not, nor bring those evils after them, as others.

S. We see no variety or difference betwixt volitions, only between their effects. 'Tis one Will, one Act—distinguished by the effects. This Will, this Act, is the Spirit, i.e. operative principle, soul, &c. No mention of fears and jealousies, nothing like a party.

M. Locke in his 4th Book [1], and Des Cartes in Med. 6, use the same argument for the existence of objects, viz. that sometimes we see, feel, &c. against our will.

S. While I exist or have any idea, I am eternally, constantly willing; my acquiescing in the present state is willing.

E. The existence of any thing imaginable is nothing different from imagination or perception [2]. Volition or Will, wch is not imaginable, regard must not be had to its existence (?) * * * First Book.

Mo. There are four sorts of propositions:—'Gold is a metal;' 'Gold is yellow;' 'Gold is fixt;' 'Gold is not a stone'—of which the first, second, and third are only nominal, and have no mental propositions answering them.

M. Mem. In vindication of the senses effectually to confute what Des Cartes saith in the last par. of the last Med., viz. that the senses oftener inform him falsely than truely—that sense of pain tells me not my foot is bruised or broken, but I, having frequently observed these two ideas, viz. of that peculiar pain and bruised foot go together, do erroneously take them to be inseparable by a necessity of Nature—as if Nature were anything but the ordinance of the free will of God [3].

M. Des Cartes owns we know not a substance immediately
S. by itself, but by this alone, that it is the subject of several acts. Ans. to 2d objection of Hobbs.

S. Hobbs in some degree falls in with Locke, saying thought is to the mind or himself as dancing to the dancer. Object.

S. Hobbs in his Object. 3 ridicules those expressions of

[1] Ch. II. § 5.
[2] Why add—'or perception'?
[3] Here we have Berkeley's favourite thought of the divine arbitrariness of the constitution of Nature, and of its laws of change.

the scholastiques—'the will wills,' &c. So does Locke. I am of another mind [1].

S. Des Cartes, in answer to Object. 3 of Hobbs, owns he is distinct from thought as a thing from its modus or manner.

E. Opinion that existence was distinct from perception of
S. horrible consequence. It is the foundation of Hobbs's doctrine, &c.

M. Malbranch in his illustration [2] differs widely from me.
P. He doubts of the existence of bodies. I doubt not in the
E. least of this.

P. I differ from Cartesians in that I make extension, colour, &c. to exist really in bodies independent of our mind [3]. All y^{s} carefully and lucidly to be set forth.

M. Not to mention the combinations of powers, but to say the
P. things—the effects themselves—do really exist, even w^{n} not actually perceived; but still with relation to perception [4].

The great use of the Indian figures above the Roman shews arithmetic to be about signs, not ideas—or at least not ideas different from the characters themselves [5].

M. Reasoning there may be about things or ideas, or about
N. actions; but demonstration can be only verbal. I question, no matter &c.

G. Quoth Des Cartes, The idea of God is not made by me, for I can neither add to nor subtract from it. No more can he add to or take from any other idea, even of his own making.

S. The not distinguishing 'twixt Will and ideas is a grand mistake with Hobbs. He takes those things for nothing which are not ideas [6].

M. Say you, At this rate all's nothing but idea—mere phantasm. I answer, Everything as real as ever. I hope to call a thing idea makes it not the less real. Truly I should perhaps have stuck to the word thing, and not mentioned

[1] This suggests the puzzle, that the cause of every volition must be a preceding volition, and so on *ad infinitum*.

[2] *Recherche*, I. 19.

[3] i. e. of his own individual mind.

[4] i. e. to *a* percipient mind, but not necessarily to *mine*; for natural laws are independent of individual will, although the individual participates in perception of the ordered changes.

[5] Cf. the *Arithmetica*.

[6] i. e. which are not phenomena. This recognition of originative Will even then distinguished Berkeley.

the word idea, were it not for a reason, and I think a good one too, which I shall give in the Second Book [1].

I. S. Idea is the object of thought. Yt I think on, whatever it be, I call idea. Thought itself, or thinking, is no idea. 'Tis an act—i.e. volition, i.e. as contradistinguished to effects—the Will.

I. Mo. Locke, in B. 4. c. 5, assigns not the right cause why mental propositions are so difficult. It is not because of complex but because of abstract ideas. Ye idea of a horse is as complex as that of fortitude. Yet in saying the 'horse is white' I form a mental proposition with ease. But when I say 'fortitude is a virtue,' I shall find a mental proposition hard, or not at all to be come at.

S. Pure intellect I understand not [2].

Locke is in ye right in those things wherein he differs from ye Cartesians, and they cannot but allow of his opinions, if they stick to their own principles or causes of Existence & other abstract ideas.

G. S. The properties of all things are in God, i.e. there is in the Deity Understanding as well as Will. He is no blind agent, and in truth a blind agent is a contradiction [3].

G. I am certain there is a God, tho' I do not perceive Him —have no intuition of Him. This not difficult if we rightly understand wt is meant by certainty.

S. It seems that the Soul, taken for the Will, is immortal, incorruptible.

S. Qu. whether perception must of necessity precede volition?

S. Mo. Error is not in the Understanding, but in the Will. What I understand or perceive, that I understand. There can be no errour in this.

Mo. N. Mem. To take notice of Locke's woman afraid of a wetting, in the Introd., to shew there may be reasoning about ideas or things.

M. Say Des Cartes & Malbranch, God hath given us strong inclinations to think our ideas proceed from bodies, or that

[1] Is this Part II of the *Principles*, which was lost in Italy?

[2] The thought of articulate *relations* to which real existence must conform, was not then at least in Berkeley's mind. Hence the empiricism and sensationalism into which he occasionally seems to rush in the *Commonplace Book*, in his repulsion from empty abstractions.

[3] This is the essence of Berkeley's philosophy—'a blind agent is a contradiction.'

bodies do exist. Pray w^t^ mean they by this? Would they have it that the ideas of imagination are images of, and proceed from, the ideas of sense? This is true, but cannot be their meaning; for they speak of ideas of sense as themselves proceeding from, being like unto—I know not w^t^ [1].

M. S. Cartesius per ideam vult omne id quod habet esse objectivum in intellectu. V. Tract. de Methodo.

S. Qu. May there not be an Understanding without a Will?

S. Understanding is in some sort an action.

S. Silly of Hobbs, &c. to speak of the Will as if it were motion, with which it has no likeness.

M. Ideas of Sense are the real things or archetypes. Ideas of imagination, dreams, &c. are copies, images, of these.

M. My doctrines rightly understood, all that philosophy of Epicurus, Hobbs, Spinosa, &c., which has been a declared enemy of religion, comes to the ground.

G. Hobbs & Spinosa make God extended. Locke also seems to do the same [2].

I. E. Ens, res, aliquid dicuntur termini transcendentales. Spinosa, p. 76, prop. 40, Eth. part 2, gives an odd account of their original. Also of the original of all universals—Homo, Canis, &c.

G. Spinosa (vid. Præf. Opera Posthum.) will have God to be 'omnium rerum causa immanens,' and to countenance this produces that of St. Paul, 'in Him we live,' &c. Now this of St. Paul may be explained by my doctrine as well as Spinosa's, or Locke's, or Hobbs's, or Raphson's [3], &c.

S. The Will is *purus actus*, or rather pure spirit not imag-

[1] This is the basis of Berkeley's reasoning for the necessarily *unrepresentative* character of the ideas or phenomena that are presented to our senses. *They* are the originals.

[2] Berkeley's horror of abstract or unperceived space and atoms is partly explained by dogmas in natural philosophy that are now antiquated.

[3] Ralph [?] Raphson, author of *Demonstratio de Deo* (1710), and also of *De Spatio Reali, seu ente Infinito: conamen mathematico-metaphysicum* (1697), to which Berkeley refers in one of his letters to Johnson. See also Green's *Principles of Natural Philosophy* (1712). The immanence of omnipotent goodness in the material world was unconsciously Berkeley's presupposition. In God we have our being.

inable, not sensible, not intelligible, in no wise the object of the understanding, no wise perceivable.

S. Substance of a spirit is that it acts, causes, wills, operates, or if you please (to avoid the quibble y^{t} may be made of the word 'it') to act, cause, will, operate. Its substance is not knowable, not being an idea.

G. Why may we not conceive it possible for God to create things out of nothing? Certainly we ourselves create in some wise whenever we imagine.

E. N. 'Ex nihilo nihil fit.' This (saith Spinoza, Opera Posth. p. 464) and the like are called *veritates æternæ*, because 'nullam fidem habent extra mentem.' To make this axiom have a positive signification, one should express it thus: Every idea has a cause, i.e. is produced by a Will[1].

P. The philosophers talk much of a distinction 'twixt absolute & relative things, or 'twixt things considered in their own nature & the same things considered with respect to us. I know not w^{t} they mean by 'things considered in themselves.' This is nonsense, jargon.

S. It seems there can be no perception—no idea—without Will, seeing there are no ideas so indifferent but one had rather have them than annihilation, or annihilation than them. Or if there be such an equal balance, there must be an equal mixture of pleasure and pain to cause it; there being no ideas perfectly void of all pain & uneasiness, but w^{t} are preferable to annihilation.

Recipe in animum tuum, per cogitationem vehementem, rerum ipsarum, non literarum aut sonorum imagines. Hobbs against Wallis.

'Tis a perfection we may imagine in superior spirits, that they can see a great deal at once with the utmost clearness and distinction; whereas we can only see a point[2].

Mem. W^{n} I treat of mathematiques to enquire into the controversy 'twixt Hobbes and Wallis.

[1] Note here Berkeley's version of the causal principle, which is really the central presupposition of his whole philosophy—viz. every event in the material world must be the issue of acting Will.

[2] So Locke on an ideally perfect memory. *Essay*, Bk. II. ch. x. § 9.

G. Every sensation of mine, which happens in consequence of the general known laws of nature, & is from without, i.e. independent of my will, demonstrates the being of a God, i.e. of an unextended, incorporeal spirit, which is omnipresent, omnipotent, &c.

M. I say not with J. S. [John Sergeant] that we *see* solids. I reject his 'solid philosophy'—solidity being only perceived by touch [1].

S. It seems to me that will and understanding—volitions and ideas—cannot be separated, that either cannot be possibly without the other.

E. S. Some ideas or other I must have, so long as I exist or will. But no one idea or sort of ideas being essential [2].

M. The distinction between idea and ideatum I cannot otherwise conceive than by making one the effect or consequence of dream, reverie, imagination—the other of sense and the constant laws of nature.

P. Dico quod extensio non concipitur in se et per se, contra quam dicit Spinoza in Epist. 2[a] ad Oldenburgium.

G. My definition of the word God I think much clearer than those of Des Cartes & Spinoza, viz. 'Ens summe perfectum & absolute infinitum,' or 'Ens constans infinitis attributis, quorum unumquodque est infinitum [3].'

'Tis chiefly the connexion betwixt tangible and visible ideas that deceives, and not the visible ideas themselves.

S. But the grand mistake is that we know not what we mean by 'we,' or 'selves,' or 'mind,' &c. 'Tis most sure & certain that our ideas are distinct from the mind, i.e. the Will, the Spirit [4].

S. I must not mention the understanding as a faculty or

[1] John Sergeant was the author of *Solid Philosophy asserted against the Fancies of the Ideists* (London, 1697); also of *The Method to Science* (1696). He was a deserter from the Church of England to the Church of Rome, and wrote several pieces in defence of Roman theology—some of them in controversy with Tillotson.

[2] Spirit and Matter are mutually dependent; but Spirit is the realising factor and real agent in the universe.

[3] See Descartes, *Méditations*, III; Spinoza, *Epist.* II, ad Oldenburgium.

[4] Cf. *Principles*, sect. 2.

part of the mind. I must include understanding & will in the word Spirit—by which I mean all that is active. I must not say that the understanding differs not from the particular ideas, or the will from particular volitions.

S. The Spirit, the Mind, is neither a volition nor an idea.

N. I say there are no causes (properly speaking) but spiritual,

S. nothing active but Spirit. Say you, This is only verbal; 'tis only annexing a new sort of signification to the word cause, & why may not others as well retain the old one, and call one idea the cause of another which always follows it? I answer, If you do so I shall drive you into many absurditys: you cannot avoid running into opinions you'll be glad to disown, if you stick firmly to that signification of the word Cause.

Mo. In valuing good we reckon too much on the present & our own.

Mo. There be two sorts of pleasure. The one is ordained as a spur or incitement to somewhat else, & has a visible relation and subordination thereto; the other is not. Thus the pleasure of eating is of the former sort, of musick of the later sort. These may be used for recreation, those not but in order to their end.

Mo. Three sorts of useful knowledge—that of Coexistence, to

N. be treated of in our Principles of Natural Philosophy; that of Relation, in Mathematiques; that of Definition, or inclusion, or words (which perhaps differs not from that of relation), in Morality[1].

S. Will, understanding, desire, hatred, &c., so far forth as they are acts or active, differ not. All their difference consists in their objects, circumstances, &c.

N. We must carefully distinguish betwixt two sorts of causes —physical & spiritual.

N. The physical may more properly be called occasions. Yet (to comply) we may call them causes—but then we must mean causes y^{t} do nothing.

S. According to Locke, we must be in an eternal uneasiness

[1] Is 'inclusion' here virtually a synonym for verbal definition?

so long as we live, bating the time of sleep or trance, &c.; for he will have even the continuance of an action to be in his sense an action, & so requires a volition, & this an uneasiness.

I. I must not pretend to promise much of demonstration. I must cancell all passages that look like that sort of pride, that raising of expectation in my friend.

I. If this be the case, surely a man had better not philosophize at all: no more than a deformed person ought to cavil to behold himself by the reflex light of a mirrour.

I. Or thus, like deformed persons who, having beheld themselves by the reflex light of a mirrour, are displeased with their diseases.

M. What can an idea be like but another idea? We can compare it with nothing else—a sound like a sound, a colour like a colour.

M. Is it not nonsense to say a smell is like a thing which cannot be smelt, a colour is like a thing w^{h} cannot be seen?

M. S. Bodies exist without the mind, i. e. are not the mind, but distinct from it. This I allow, the mind being altogether different therefrom[1].

P. Certainly we should not see motion if there was no diversity of colours.

P. Motion is an abstract idea, i. e. there is no such idea that can be conceived by itself.

I. Contradictions cannot be both true. Men are obliged to answer objections drawn from consequences. Introd.

S. The Will and Volition are words not used by the vulgar. The learned are bantered by their meaning abstract ideas.

Speculative Math. as if a man was all day making hard knots on purpose to unty them again.

Tho' it might have been otherwise, yet it is convenient the same thing w^{ch} is M.V. should be also M.T., or very near it.

S. I must not give the soul or mind the scholastique name 'pure act,' but rather pure spirit, or active being.

[1] See *Principles*, sect. 2. The universe of Berkeley consists of Active Spirits that perceive and produce motion in impotent ideas or phenomena, realised in the percipient experience of persons. All supposed powers in Matter are refunded into Spirit.

S. I must not say the Will or Understanding are all one, but that they are both abstract ideas, i. e. none at all—they not being even *ratione* different from the Spirit, *quâ* faculties, or active.

S. Dangerous to make idea & thing terms convertible[1]. That were the way to prove spirits are nothing.

Mo. Qu. whether *veritas* stands not for an abstract idea?

M. 'Tis plain the moderns must by their own principles own there are no bodies, i. e. no sort of bodies without the mind, i. e. unperceived.

S. Qu. whether the Will can be the object of prescience or
G. any knowledge?

P. If there were only one ball in the world, it could not be moved. There could be no variety of appearance.

According to the doctrine of infinite divisibility, there must be some smell of a rose, v. g. at an infinite distance from it.

M. Extension, tho' it exist only in the mind, yet is no property of the mind. The mind can exist without it, tho' it cannot without the mind. But in Book II. I shall at large shew the difference there is betwixt the Soul and Body or extended being.

S. 'Tis an absurd question w^ch^ Locke puts, whether man be free to will?

Mem. To enquire into the reason of the rule for determining questions in Algebra.

It has already been observed by others that names are nowhere of more necessary use than in numbering.

M. I will grant you that extension, colour, &c. may be said
P. to be without the mind in a double respect, i. e. as independent of our will, and as distinct from the mind.

Mo. Certainly it is not impossible but a man may arrive at
N. the knowledge of all real truth as well without as with signs, had he a memory and imagination most strong and capacious. Therefore reasoning & science doth not altogether depend upon words or names[2].

[1] When self-conscious agents are included among 'things.' We can have no sensuous image, i. e. idea, of *spirit*, although he maintains we can use the word intelligently.

[2] Berkeley insists that we should individualise our thinking—'ipsis consuescere rebus,' as Bacon says,—to escape the dangers of artificial signs. This is the drift of his

N. I think not that things fall out of necessity. The connexion of no two ideas is necessary; 'tis all the result of freedom, i. e. 'tis all voluntary [1].

M. If a man with his eyes shut imagines to himself the sun
S. & firmament, you will not say *he* or *his mind* is the sun, or is extended, tho' neither sun or firmament be without mind.

S. 'Tis strange to find philosophers doubting & disputing whether they have ideas of spiritual things or no. Surely 'tis easy to know. Vid. De Vries [2], *De Ideis Innatis*, p. 64.

S. De Vries will have it that we know the mind agrees with things not by idea but sense or conscientia. So will Malbranch. This a vain distinction.

August 28th, 1708. The Adventure of the [Shirt ?].

It were to be wished that persons of the greatest birth, honour, & fortune, would take that care of themselves, by education, industry, literature, & a love of virtue, to surpass all other men in knowledge & all other qualifications necessary for great actions, as far as they do in quality & titles; that princes out of them might always chose men fit for all employments and high trusts. Clov. B. 7.

One eternity greater than another of the same kind.

In what sense eternity may be limited.

G.T. Whether succession of ideas in the Divine intellect ?

T. Time is the train of ideas succeeding each other.

Duration not distinguish'd from existence.

Succession explain'd by before, between, after, & numbering.

Why time in pain longer than time in pleasure ?

Duration infinitely divisible, time not so.

assault on abstract ideas, and his repulsion from what is not concrete. He would even dispense with words in his meditations in case of being sophisticated by abstractions.

[1] Nature or the phenomenal world in short is the revelation of perfectly reasonable Will.

[2] Gerard De Vries, the Cartesian.

T. The same τὸ νῦν not common to all intelligences.

Time thought infinitely divisible on account of its measure.

Extension not infinitely divisible in one sense.

Revolutions immediately measure train of ideas, mediately duration.

T. Time a sensation; therefore onely in ye mind.

Eternity is onely a train of innumerable ideas. Hence the immortality of ye soul easily conceiv'd, or rather the immortality of the person, that of ye soul not being necessary for ought we can see.

Swiftness of ideas compar'd with yt of motions shews the wisdom of God.

Wt if succession of ideas were swifter, wt if slower?

M. ffall of Adam, use of idolatry, use of Epicurism & Hobbism, dispute about divisibility of matter, &c. expounded by material substances.

Extension a sensation, therefore not without the mind.

M. In the immaterial hypothesis, the wall is white, fire hot, &c.

Primary ideas prov'd not to exist in matter; after the same manner yt secondary ones are prov'd not to exist therein.

Demonstrations of the infinite divisibility of extension suppose length without breadth, or invisible length, wch is absurd.

M. World wthout thought is *nec quid, nec quantum, nec quale*, &c.

M. 'Tis wondrous to contemplate ye World empty'd of all intelligences.

Nothing properly but Persons, i. e. conscious things, do exist. All other things are not so much existences as manners of ye existence of persons[1].

Qu. about the soul, or rather person, whether it be not compleatly known?

Infinite divisibility of extension does suppose the external existence of extension; but the later is false, ergo ye former also.

Qu. Blind man made to see, would he know motion at 1st sight?

Motion, figure, and extension perceivable by sight are

[1] Are the things of sense only modes in which percipient persons exist?

different from those ideas perceived by touch w^{ch} goe by the same name.

Diagonal incommensurable wth y^{e} side. Quære how this can be in my doctrine?

N. Qu. how to reconcile Newton's 2 sorts of motion with my doctrine?

Terminations of surfaces & lines not imaginable *per se.*

Molyneux's blind man would not know the sphere or cube to be bodies or extended at first sight[1].

Extension so far from being incompatible wth, y^{t} 'tis impossible it should exist without thought.

M. Extension itself or anything extended cannot think—
S. these being meer ideas or sensations, whose essence we thoroughly know.

No extension but surface perceivable by sight.

M. W^{n} we imagine 2 bowls v. g. moving in vacuo, 'tis only conceiving a person affected with these sensations.

M. Extension to exist in a thoughtless thing [or rather in a thing void of perception—thought seeming to imply action], is a contradiction.

Qu. if visible motion be proportional to tangible motion?

T. In some dreams succession of ideas swifter than at other times.

M. If a piece of matter have extension, that must be determined to a particular bigness & figure, but &c.

Nothing wthout corresponds to our primary ideas but powers. Hence a direct & brief demonstration of an active powerfull Being, distinct from us, on whom we depend.

The name of colours actually given to tangible qualities, by the relation of y^{e} story of the German Count.

Qu. How came visible & tangible qualities by the same name in all languages?

Qu. Whether Being might not be the substance of the soul, or (otherwise thus) whether Being, added to y^{e} faculties, compleat the real essence and adequate definition of the soul?

N. Qu. Whether, on the supposition of external bodies, it be possible for us to know that any body is absolutely

[1] See Locke's *Essay*, Bk. II. ch. 9. § 8.

at rest, since that supposing ideas much slower than at present, bodies now apparently moving w^d then be apparently at rest?

M. Qu. What can be like a sensation but a sensation?

Qu. Did ever any man see any other things besides his own ideas, that he should compare them to these, and make these like unto them?

T. The age of a fly, for ought that we know, may be as long as y^t of a man [1].

Visible distance heterogeneous from tangible distance demonstrated 3 several ways:—

1^st. If a tangible inch be equal or in any other reason to a visible inch, thence it will follow y^t unequals are equals, w^ch is absurd: for at what distance would the visible inch be placed to make it equal to the tangible inch?

2^d. One made to see that had not yet seen his own limbs, or any thing he touched, upon sight of a foot length would know it to be a foot length, if tangible foot & visible foot were the same idea—sed falsum id, ergo et hoc.

3^dly. From Molyneux's problem, w^ch otherwise is falsely solv'd by Locke and him [2].

M. Nothing but ideas perceivable [3].

A man cannot compare 2 things together without perceiving them each. Ergo, he cannot say anything w^ch is not an idea is like or unlike an idea.

Bodies &c. do exist even w^n not perceived—they being powers in the active being [4].

Succession a simple idea, [succession is an abstract, i.e. an inconceivable idea,] Locke says [5].

Visible extension is [proportional to tangible extension, also is] encreated & diminish'd by parts. Hence taken for the same.

[1] Time being relative to the capacity of the percipient.

[2] See Locke's *Essay*, Bk. II. ch. 9. § 8.

[3] To perceive what is not an idea (as Berkeley uses idea) is to perceive what is not realised, and therefore not real.

[4] So things have a *potential* objective existence in the Divine Will.

[5] With Berkeley, change is time, and time, abstracted from all changes, is meaningless.

If extension be without the mind in bodies. Qu. whether tangible or visible, or both?

Mathematical propositions about extension & motion true in a double sense.

Extension thought peculiarly inert, because not accompany'd wth pleasure & pain: hence thought to exist in matter; as also for that it was conceiv'd common to 2 senses, [as also the constant perception of 'em].

Blind at 1st sight could not tell how near what he saw was to him, nor even whether it be wthout him or in his eye[1]. Qu. Would he not think the later?

Blind at 1st sight could not know y^{t} w^{t} he saw was extended, until he had seen and touched some one self-same thing—not knowing how *minimum tangibile* would look in vision.

M. Mem. That homogeneous particles be brought in to answer the objection of God's creating sun, plants, &c. before animals.

In every bodie two infinite series of extension—the one of tangible, the other of visible.

All things to a blind [man] at first seen in a point.

Ignorance of glasses made men think extension to be in bodies.

M. Homogeneous portions of matter—useful to contemplate them.

Extension if in matter changes its relation wth *minimum visibile*, w^{ch} seems to be fixt.

Qu. whether m.v. be fix'd?

M. Each particle of matter if extended must be infinitely extended, or have an infinite series of extension.

M. If the world be granted to consist of Matter, 'tis the mind gives it beauty and proportion.

W^{t} I have said onely proves there is no proportion at all times and in all men between a visible & tangible inch.

Tangible and visible extension heterogeneous, because they have no common measure; also because their simplest constituent parts or elements are specifically different, viz. *punctum visibile* & *tangibile*. N.B. The former seems to be no good reason.

[1] Could he know, by seeing only, even that he *had* a body?

M. By immateriality is solv'd the cohesion of bodies, or
N. rather the dispute ceases.

Our idea we call extension neither way capable of infinity, i. e. neither infinitely small or great.

Greatest possible extension seen under an angle w^ch will be less than 180 degrees, the legs of w^ch angle proceed from the ends of the extension.

N. Allowing there be extended, solid, &c. substances without the mind, 'tis impossible the mind should know or perceive them; the mind, even according to the materialists, perceiving onely the impressions made upon its brain, or rather the ideas attending these impressions [1].

Unity *in abstracto* not at all divisible, it being as it were a point, or with Barrow nothing at all; *in concreto* not divisible *ad infinitum*, there being no one idea demonstrable *ad infinitum*.

M. Any subject can have of each sort of primary qualities but one particular at once. Locke, b. 4. c. 3. s. 15.

Qu. whether we have clear ideas of large numbers themselves, or onely of their relations?

M. Of solidity see L. b. 2. c. 4. s. 1, 5, 6. If any one ask w^t solidity is, let him put a flint between his hands and he will know. Extension of body is continuity of solid, &c.; extension of space is continuity of unsolid, &c.

Why may not I say visible extension is a continuity of visible points, tangible extension is a continuity of tangible points?

M. Mem. That I take notice that I do not fall in w^th sceptics, Fardella [2], &c., in that I make bodies to exist certainly, w^ch they doubt of.

M. I am more certain of y^e existence & reality of bodies than Mr. Locke; since he pretends onely to w^t he calls sensitive knowledge [3], whereas I think I have demonstrative

[1] 'the ideas attending these impressions,' i.e. the ideas that are correlatives of the (by us unperceived) organic impressions.

[2] The Italian physical and metaphysical philosopher Fardella (1650–1718) maintained, by reasonings akin to those of Malebranche, that the existence of the material world could not be scientifically proved, and could only be maintained by faith in authoritative revelation. See his *Universæ Philosophiæ Systema* (1690), and especially his *Logica* (1696).

[3] Locke's *Essay*, Bk. IV. ch. 11.

knowledge of their existence—by them meaning combinations of powers in an unknown substratum[1].

M. Our ideas we call figure & extension, not images of the figure and extension of matter; these (if such there be) being infinitely divisible, those not so.

'Tis impossible a material cube should exist, because the edges of a cube will appear broad to an acute sense.

Men die, or are in [a] state of annihilation, oft in a day.

S. Powers. Qu. whether more or one onely?

Lengths abstract from breadths are the work of the mind. Such do intersect in a point at all angles. After the same way colour is abstract from extension.

Every position alters the line.

Qu. whether ideas of extension are made up of other ideas, v.g. idea of a foot made up of general ideas of an inch?

The idea of an inch length not one determin'd idea. Hence enquire the reason why we are out in judging of extension by the sight; for which purpose 'tis meet also to consider the frequent & sudden changes of extension by position.

No stated ideas of length without a minimum.

M. Material substance banter'd by Locke, b. 2. c. 13. s. 19.

M. In my doctrine all absurdities from infinite space &c. cease[2].

Qu. whether if (speaking grossly) the things we see were all of them at all times too small to be felt, we should have confounded tangible & visible extension and figure?

T. Qu. whether if succession of ideas in the Eternal Mind, a day does not seem to God a 1000 years, rather than a 1000 years a day?

But one only colour & its degrees.

[1] What does he mean by 'unknown substratum'?

[2] He gets rid of the infinite in quantity, because it is incapable of concrete manifestation to the senses. When a phenomenon given in sense reaches the *minimum sensibile*, it reaches what is for us the margin of realisable existence: it cannot be infinitely little and still a phenomenon: insensible phenomena of sense involve a contradiction. And so too of the infinitely large.

Enquiry about a grand mistake in writers of dioptricks in assigning the cause of microscopes magnifying objects.

Qu. whether a born-blind [man] made to see would at 1st give the name of distance to any idea intromitted by sight; since he would take distance yt that he had perceived by *touch* to be something existing without his mind, but he would certainly think that nothing *seen* was without his mind[1]?

S. Space without any bodies existing *in rerum natura* would not be extended, as not having parts—in that parts are assigned to it wth respect to body; from whence also the notion of distance is taken. Now without either parts or distance or mind, how can there be Space, or anything beside one uniform Nothing?

Two demonstrations that blind made to see would not take all things he saw to be without his mind, or not in a point—the one from microscopic eyes, the other from not perceiving distance, i. e. radius of the visual sphere.

M. The trees are in the park, i. e. whether I will or no, whether I imagine anything about them or no. Let me but go thither and open my eyes by day, & I shall not avoid seeing them.

By extension blind [man] would mean either the perception caused in his touch by something he calls extended, or else the power of raising that perception; wch power is without, in the thing termed extended. Now he could not know either of these to be in things visible till he had try'd.

Geometry seems to have for its object tangible extension, figures, & motion—and not visible[2].

A man will say a body will seem as big as before, tho' the visible idea it yields be less than wt it was; therefore the bigness or tangible extension of the body is different from the visible extension.

Extension or space no simple idea—length, breadth, & solidity being three several ideas.

[1] In short he would idealise the visible world but not the tangible world. In the *Principles*, Berkeley idealises both.

[2] Cf. *Essay on Vision*, sect. 149–59, where he concludes that 'neither abstract nor visible extension makes the object of geometry.'

Depth or solidity *now* perceived by sight [1].

Strange impotence of men. Man without God wretcheder than a stone or tree; he having onely the power to be miserable by his unperformed wills, these having no power at all [2].

Length perceivable by hearing—length & breadth by sight—length, breadth, & depth by touch.

G. W^t affects us must be a thinking thing, for w^t thinks not cannot subsist.

Number not in bodies, it being the creature of the mind, depending entirely on its consideration, & being more or less as the mind pleases [3].

Mem. Quære whether extension be equally a sensation with colour? The mob use not the word extension. 'Tis an abstract term of the Schools.

P. Round figure a perception or sensation in the mind, but in the body is a power. L[ocke], b. 2. c. 8. s. 8.

Mem. Mark well the later part of the last cited section.

Solids, or any other tangible things, are no otherwise seen than colours felt by the German Count.

M. 'Of' and 'thing' causes of mistake.

The visible point of he who has microscopical eyes will not be greater or less than mine.

Qu. Whether the propositions & even axioms of geometry do not divers of them suppose the existence of lines &c. without the mind?

T. Whether motion be the measure of duration? Locke, b. 2. c. 14. s. 19 [3].

Lines & points conceiv'd as terminations different ideas from those conceiv'd absolutely.

Every position alters a line.

S. Blind man at 1^st would not take colours to be without his mind; but colours would seem to be in the same place with the coloured extension: therefore extension w^d not seem to be without the mind.

[1] By the adult, who has learned to interpret its visual signs.

[2] Inasmuch as no physical consequences *follow* the volition; which however is still self-originated.

[3] 'A succession of ideas I take to *constitute* time, and not to be only the sensible measure thereof, as Mr. Locke and others think.' (Berkeley's letter to Johnson.)

All visible concentric circles whereof the eye is the centre are absolutely equal.

Infinite number—why absurd—not rightly solv'd by Locke[1].

Qu. how 'tis possible we should see flats or right lines?

Qu. why the moon appears greatest in the horizon[2]?

Qu. why we see things erect when painted inverted[3]?

T. Question put by Mr. Deering touching the thief and paradise.

M. Matter tho' allowed to exist may be no greater than a pin's head.

Motion is proportionable to space described in given time.

Velocity not proportionable to space describ'd in given time.

M. No active power but the Will: therefore Matter, if it exists, affects us not[4].

Magnitude when barely taken for the *ratio partium extra partes*, or rather for co-existence & succession, without considering the parts co-existing & succeeding, is infinitely, or rather indefinitely, or not at all perhaps, divisible, because it is itself infinite or indefinite. But definite, determined magnitudes, i.e. lines or surfaces consisting of points whereby (together wth distance & position) they are determin'd, are resoluble into those points.

Again. Magnitude taken for co-existence and succession is not all divisible, but is one simple idea.

Simple ideas include no parts nor relations—hardly separated and considered in themselves—nor yet rightly singled by any author. Instance in power, red, extension, &c.

M. Space not imaginable by any idea received from sight—not imaginable without body moving. Not even then necessarily existing (I speak of infinite space)—for w^{t} the body has past may be conceiv'd annihilated.

[1] Cf. *Essay*, Bk. II. ch. 16. sect. 8.

[2] Cf. *Essay on Vision*, sect. 67–77.

[3] Cf. *Essay on Vision*, sect. 88–120.

[4] This is of the essence of Berkeley's philosophy.

M. Qu. What can we see beside colours? what can we feel beside hard, soft, cold, warm, pleasure, pain?

Qu. Why not taste & smell extension?

Qu. Why not tangible & visible extensions thought heterogeneous extensions, so well as gustable & olefactible perceptions thought heterogeneous perceptions? or at least why not as heterogeneous as blue & red?

Moon w^n horizontal does not appear bigger as to visible extension than at other times; hence difficulties and disputes about things seen under equal angles &c. cease.

All *potentiæ* alike indifferent.

A. B. W^t does he mean by his *potentia*? Is it the will, desire, person, or all or neither, or sometimes one, sometimes t'other?

No agent can be conceiv'd indifferent as to pain or pleasure.

We do not, properly speaking, in a strict philosophical sense, make objects more or less pleasant; but the laws of nature do that.

Mo. S. A finite intelligence might have foreseen 4 thousand years agoe the place and circumstances, even the most minute & trivial, of my present existence. This true on supposition that uneasiness determines the will.

S. Doctrines of liberty, prescience, &c. explained by billiard balls.

W^t judgement would he make of uppermost and lowermost who had always seen through an inverting glass?

All lines subtending the same optic angle congruent (as is evident by an easy experiment); therefore they are equal.

We have not pure simple ideas of blue, red, or any other colour (except perhaps black) because all bodies reflect heterogeneal light.

Qu. Whether this be true as to sounds (& other sensations), there being, perhaps, rays of air w^{ch} will onely exhibit one particular sound, as rays of light one particular colour.

Colours not definable, not because they are pure unmixt thoughts, but because we cannot easily distinguish & separate the thoughts they include, or because we want names for their component ideas.

S. By Soul is meant onely a complex idea, made up of existence, willing, & perception in a large sense. Therefore it is known and it may be defined.

We cannot possibly conceive any active power but the Will.

S. In moral matters men think ('tis true) that they are free; but this freedom is only the freedom of doing as they please; w^ch^ freedom is consecutive to the Will, respecting only the operative faculties [1].

Men impute their actions to themselves because they will'd them, and that not out of ignorance, but whereas they have the consequences of them, whether good or bad.

This does not prove men to be indifferent in respect of desiring.

If anything is meant by the *potentia* of A. B. it must be desire; but I appeal to any man if his desire be indifferent, or (to speak more to the purpose) whether he himself be indifferent in respect of w^t^ he desires till after he has desired it; for as for desire itself, or the faculty of desiring, that is indifferent, as all other faculties are.

Actions leading to heaven are in my power if I will them: therefore I will will them.

Qu. concerning the procession of Wills *in infinitum.*

Herein mathematiques have the advantage over metaphysiques and morality. Their definitions, being of words not yet known to y^e^ learner, are not disputed; but words in metaphysiques & morality, being mostly known to all, the definitions of them may chance to be contraverted.

M. The short jejune way in mathematiques will not do in metaphysiques & ethiques: for y^t^ about mathematical propositions men have no prejudices, no anticipated opinions to be encounter'd; they not having yet thought on such matters. 'Tis not so in the other 2 mentioned sciences. A man must [there] not onely demonstrate the truth, he must also vindicate it against scruples and established opinions which contradict it. In short, the dry, strigose [2], rigid way will not suffice. He must be more ample & copious, else his demonstration, tho' never so exact, will not go down with most.

[1] But in moral freedom originates in the agent, instead of being 'consecutive' to his voluntary acts or found only in their consequences.

[2] 'Strigose' (strigosus)—meagre.

Extension seems to consist in variety of homogeneal thoughts co-existing without mixture.

Or rather visible extension seems to be the co-existence of colour in the mind.

S. Mo. Enquiring and judging are actions which depend on the operative faculties, w^ch^ depend on the Will, w^ch^ is determin'd by some uneasiness; ergo &c. Suppose an agent w^ch^ is finite perfectly indifferent, and as to desiring not determin'd by any prospect or consideration of good, I say, this agent cannot do an action morally good. Hence 'tis evident the suppositions of A. B. are insignificant.

Extension, motion, time, number are no simple ideas, but include succession to them, which seems to be a simple idea.

Mem. To enquire into the angle of contact, & into fluxions, &c.

The sphere of vision is equal whether I look onely in my hand or on the open firmament, for 1^st^, in both cases the retina is full; 2^d^, the radius's of both spheres are equall or rather nothing at all to the sight; 3^dly^, equal numbers of points in one & t'other.

In the Barrovian case purblind would judge aright.

Why the horizontal moon greater?

Why objects seen erect?

N. To what purpose certain figure and texture connected w^th^ other perceptions?

Men estimate magnitudes both by angles and distance. Blind at 1^st^ could not know distance; or by pure sight, abstracting from experience of connexion of sight and tangible ideas, we can't perceive distance. Therefore by pure sight we cannot perceive or judge of extension.

Qu. Whether it be possible to enlarge our sight or make us see at once more, or more points, than we do, by diminishing the *punctum visibile* below 30″?

I. S. Speech metaphorical more than we imagine; insensible things, & their modes, circumstances, &c. being exprest for the most part by words borrow'd from things sensible. Hence manyfold mistakes.

S. The grand mistake is that we think we have *ideas* of the

operations of our minds[1]. Certainly this metaphorical dress is an argument we have not.

Qu. How can our idea of God be complex & compounded, when his essence is simple & uncompounded? V. Locke, b. 2. c. 23. s. 35[2].

G. The impossibility of defining or discoursing clearly of such things proceeds from the fault & scantiness of language, as much perhaps as from obscurity & confusion of thought. Hence I may clearly and fully understand my own soul, extension, &c., and not be able to define them[3].

M. The substance *wood* a collection of simple ideas. See Locke, b. 2. c. 26. s. 1.

Mem. concerning strait lines seen to look at them through an orbicular lattice.

Qu. Whether possible that those visible ideas w^{ch} are now connected with greater tangible extensions could have been connected with lesser tangible extensions,—there seeming to be no *necessary* connexion between those thoughts?

Speculums seem to diminish or enlarge objects not by altering the optique angle, but by altering the apparent distance.

Hence Qu. if blind would think things diminish'd by convexes, or enlarg'd by concaves?

P.N. Motion not one idea. It cannot be perceived at once.

M. P. Mem. To allow existence to colours in the dark, persons not thinking, &c.—but not an actual existence. 'Tis prudent to correct men's mistakes without altering their language. This makes truth glide into their souls insensibly[4].

M. P. Colours in y^{e} dark do exist really, i. e. were there light; or as soon as light comes, we shall see them, provided we open our eyes; and that whether we will or no.

How the retina is fill'd by a looking-glass?

Convex speculums have the same effect wth concave glasses.

[1] As he afterwards expresses it, we have intelligible *notions*, but not *ideas*—sensuous pictures—of the states or acts of our minds.

[2] ['Omnes reales rerum proprietates continentur in Deo.' What means Le Clerc &c. by this? Log. I. ch. 8.]—AUTHOR, on margin.

[3] 'Si non rogas intelligo.'

[4] This way of winning others to his own opinions is very characteristic of Berkeley. See p. 92 and note.

Qu. Whether concave speculums have the same effect wth convex glasses?

The reason why convex speculums diminish & concave magnify not yet fully assign'd by any writer I know.

Qu. Why not objects seen confus'd when that they seem inverted through a convex lens?

Qu. How to make a glass or speculum which shall magnify or diminish by altering the distance without altering the angle?

No identity (other than perfect likeness) in any individuals besides persons[1].

N. As well make tastes, smells, fear, shame, wit, virtue, vice, & all thoughts move wth local motion as immaterial spirit.

On account of my doctrine, the identity of finite substances must consist in something else than continued existence, or relation to determined time & place of beginning to exist—the existence of our thoughts (which being combined make all substances) being frequently interrupted, & they having divers beginnings & endings[1].

S. Qu. Whether identity of person consists not in the Will?[1]

No necessary connexion between great or little optique angles and great or little extension.

Distance is not perceived: optique angles are not perceived. How then is extension perceiv'd by sight?

Apparent magnitude of a line is not simply as the optique angle, but directly as the optique angle, & reciprocally as the confusion, &c. (i.e. the other sensations, or want of sensation, that attend near vision). Hence great mistakes in assigning the magnifying power of glasses. Vid. Moly[neux], p. 182.

Glasses or speculums may perhaps magnify or lessen without altering the optique angle, but to no purpose.

Qu. Whether purblind would think objects so much diminished by a convex speculum as another?

Qu. Wherein consists identity of person[1]? Not in actual consciousness; for then I'm not the same person I was this day twelvemonth but while I think of w^{t} I then

[1] See *Third Dialogue*, on *sameness* in things and *sameness* in persons, which it puzzles him to reconcile with his New Principles.

did. Not in potential; for then all persons may be the same, for ought we know.

Mem. Story of Mr. Deering's aunt.

Two sorts of potential consciousness—natural & præternatural. In the last § but one, I mean the latter.

If by magnitude be meant the proportion anything bears to a determined tangible extension, as inch, foot, &c., this, 'tis plain, cannot be properly & *per se* perceived by sight; & as for determin'd visible inches, feet, &c., there can be no such thing obtain'd by the meer act of seeing—abstracted from experience, &c.

The greatness *per se* perceivable by the sight is onely the proportion any visible appearance bears to the others seen at the same time; or (which is the same thing) the proportion of any particular part of the visual orb to the whole. But mark that we perceive not it is an orb, any more than a plain, but by reasoning.

This is all the greatness the pictures have *per se*.

Hereby meere seeing cannot at all judge of the extension of any object, it not availing to know the object makes such a part of a sphærical surface except we also know the greatness of the sphærical surface; for a point may subtend the same angle wth a mile, & so create as great an image in the retina, i.e. take up as much of the orb.

Men judge of magnitude by faintness and vigorousness, by distinctness and confusion, with some other circumstances, by great & little angles.

Hence 'tis plain the ideas of sight which are now connected with greatness might have been connected wth smallness, and vice versâ: there being no necessary reason why great angles, faintness, and distinctness without straining, should stand for great extension, any more than a great angle, vigorousness, and confusion [1].

My end is not to deliver metaphysiques altogether in a general scholastic way, but in some measure to accommodate them to the sciences, and shew how they may be useful in optiques, geometry, &c. [2]

Qu. Whether *per se* proportion of visible magnitudes be perceivable by sight? This is put on account of distinctness and confusedness, the act of perception seeming to be

[1] Cf. *Essay on Vision*, sect. 52-61. [2] Cf. *Principles*, sect. 101-134.

as great in viewing any point of the visual orb distinctly, as in viewing the whole confusedly.

Mem. To correct my language & make it as philosophically nice as possible—to avoid giving handle.

If men could without straining alter the convexity of their crystallines, they might magnify or diminish the apparent diameters of objects, the same optic angle remaining.

The bigness in one sense of the pictures in the fund is not determin'd; for the nearer a man views them, the images of them (as well as other objects) will take up the greater room in the fund of his eye.

Mem. Introduction to contain the design of the whole, the nature and manner of demonstrating, &c.

Two sorts of bigness accurately to be distinguished, they being perfectly and *toto cælo* different—the one the proportion that any one appearance has to the sum of appearances perceived at the same time wth it, w^{ch} is proportional to angles, or, if a surface, to segments of sphærical surfaces;—the other is tangible bigness.

Qu. w^{t} would happen if the sphæræ of the retina were enlarged or diminish'd?

We think by the meer act of vision we perceive distance from us, yet we do not; also that we perceive solids, yet we do not; also the inequality of things seen under the same angle, yet we do not.

Why may I not add, We think we see extension by meer vision? Yet we do not.

Extension seems to be perceived by the eye, as thought by the ear.

As long as the same angle determines the *minimum visibile* to two persons, no different conformation of the eye can make a different appearance of magnitude in the same thing. But, it being possible to try the angle, we may certainly know whether the same thing appears differently big to two persons on account of their eyes.

If a man could see ″ objects would appear larger to him than to another; hence there is another sort of purely visible magnitude beside the proportion any appearance bears to the visual sphere, viz. its proportion to the M. V.

Were there but one and the same language in the world, and did children speak it naturally as soon as born, and

were it not in the power of men to conceal their thoughts or deceive others, but that there were an inseparable connexion between words & thoughts, so y^{t} *posito uno, ponitur alterum* by the laws of nature; Qu. would not men think they heard thoughts as much as that they see extension [1]?

All our ideas are adæquate: our knowledge of the laws of nature is not perfect & adæquate [2].

M. P. Men are in the right in judging their simple ideas to be in the things themselves. Certainly heat & colour is as much without the mind as figure, motion, time, &c.

We know many things w^{ch} we want words to express. Great things discoverable upon this principle. For want of considering w^{ch} divers men have run into sundry mistakes, endeavouring to set forth their knowledge by sounds; w^{ch} foundering them, they thought the defect was in their knowledge, while in truth it was in their language.

Qu. Whether the sensations of sight arising from a man's head be liker the sensations of touch proceeding from thence or from his legs?

Or, Is it onely the constant & long association of ideas entirely different that makes me judge them the same?

W^{t} I see is onely variety of colours & light. W^{t} I feel is hard or soft, hot or cold, rough or smooth, &c. W^{t} resemblance have these thoughts with those?

A picture painted wth great variety of colours affects the touch in one uniform manner. I cannot therefore conclude that because I see 2, I shall feel 2; because I see angles or inequalities, I shall feel angles or inequalities. How therefore can I—before experience teaches me—know that the visible leggs are (because 2) connected wth the tangible ones, or the visible head (because one) connected wth the tangible head [3]?

[1] 'distance'—on opposite page in the MS. Cf. *Essay on Vision*, sect. 140.

[2] Direct perception of phenomena is adequate to the perceived phenomena; indirect or scientific perception is inadequate, leaving room for faith and trust.

[3] Cf. *Essay on Vision*, sect. 107-8.

M. All things by us conceivable are—
1st, thoughts;
2ndly, powers to receive thoughts;
3rdly, powers to cause thoughts;
neither of all w^ch can possibly exist in an inert, senseless thing.

An object w^thout a glass may be seen under as great an angle as w^th a glass. A glass therefore does not magnify the appearance by the angle.

S. Absurd that men should know the soul by idea—ideas being inert, thoughtless. Hence Malbranch confuted[1].

I saw gladness in his looks. I saw shame in his face. So I see figure or distance.

Qu. Why things seen confusedly thro' a convex glass are not magnify'd?

Tho' we should judge the horizontal moon to be more distant, why should we therefore judge her to be greater? What connexion betwixt the same angle, further distant, and greaterness?

N. My doctrine affects the essences of the Corpuscularians.

Perfect circles, &c. exist not without (for none can so exist, whether perfect or no), but in the mind.

Lines thought divisible *ad infinitum*, because they are suppos'd to exist without. Also because they are thought the same when view'd by the naked eye, & w^n view'd thro' magnifying glasses.

They who knew not glasses had not so fair a pretence for the divisibility *ad infinitum*.

No idea of circle, &c. in abstract.

Metaphysiques as capable of certainty as ethiques, but not so capable to be demonstrated in a geometrical way; because men see clearer & have not so many prejudices in ethiques.

Visible ideas come into the mind very distinct. So do tangible ideas. Hence extension seen & felt. Sounds, tastes, &c. are more blended.

Qu. Why not extension intromitted by the taste in conjunction with the smell—seeing tastes & smells are very distinct ideas?

[1] The Divine Ideas of Malebranche and the sensuous ideas of Berkeley differ.

Blew and yellow particles mixt, while they exhibit an uniform green, their extension is not perceiv'd; but as soon as they exhibit distinct sensations of blew and yellow, then their extension is perceiv'd.

Distinct perception of visible ideas not so perfect as of tangible—tangible ideas being many at once equally vivid. Hence heterogeneous extension.

Object. Why a mist increases not the apparent magnitude of an object, in proportion to the faintness[1]?

Mem. To enquire touching the squaring of the circle, &c.

That w^ch^ seems smooth & round to the touch may to sight seem quite otherwise. Hence no *necessary* connexion betwixt visible ideas and tangible ones.

In geometry it is not prov'd that an inch is divisible *ad infinitum*.

Geometry not conversant about our compleat determined ideas of figures, for these are not divisible *ad infinitum*.

Particular circles may be squar'd, for the circumference being given a diameter may be found betwixt w^ch^ & the true there is not any perceivable difference. Therefore there is no difference—extension being a perception; & a perception not perceiv d is contradiction, nonsense, nothing. In vain to alledge the difference may be seen by magnifying-glasses, for in y^t^ case there is ('tis true) a difference perceiv'd, but not between the same ideas, but others much greater, entirely different therefrom[2].

Any visible circle possibly perceivable of any man may be squar'd, by the common way, most accurately; or even perceivable by any other being, see he never so acute, i. e. never so small an arch of a circle; this being w^t^ makes the distinction between acute & dull sight, and not the m. v., as men are perhaps apt to think.

The same is true of any tangible circle. Therefore further enquiry of accuracy in squaring or other curves is perfectly needless, & time thrown away.

Mem. To press w^t^ last precedes more homely, & so think on't again.

A meer line or distance is not made up of points, does

[1] Cf. *Essay on Vision*, sect. 71.

[2] Cf. Malebranche, *Recherche*, Bk. I. c. 6. That and the following chapters seem to have been in Berkeley's mind.

not exist, cannot be imagin'd, or have an idea framed thereof,—no more than meer colour without extension [1].

Mem. A great difference between *considering* length wthout breadth, & having an *idea* of, or *imagining*, length without breadth [2].

Malbranch out touching the crystallines diminishing, L. 1. c. 6.

'Tis possible (& perhaps not very improbable, that is, is sometimes so) we may have the greatest pictures from the least objects. Therefore no necessary connexion betwixt visible & tangible ideas. These ideas, viz. great relation to *sphæra visualis*, or to the m. v. (w^{ch} is all that I would have meant by having a greater picture) & faintness, might possibly have stood for or signify'd small tangible extensions. Certainly the greater relation to s. v. and m. v. does frequently, in that men view little objects near the eye.

Malbranch out in asserting we cannot possibly know whether there are 2 men in the world that see a thing of the same bigness. V. L. 1. c. 6.

Diagonal of particular square commensurable wth its side, they both containing a certain number of m. v.

I do not think that surfaces consist of lines, i. e. meer distances. Hence perhaps may be solid that sophism w^{ch} would prove the oblique line equal to the perpendicular between 2 parallels.

Suppose an inch represent a mile. $\frac{1}{1000}$ of an inch is nothing, but $\frac{1}{1000}$ of y^{e} mile represented is something: therefore $\frac{1}{1000}$ of an inch, tho' nothing, is not to be neglected, because it represents something, i. e. $\frac{1}{1000}$ of a mile.

Particular determin'd lines are not divisible *ad infinitum*, but lines as us'd by geometers are so, they not being determin'd to any particular finite number of points. Yet a geometer (he knows not why) will very readily say he can demonstrate an inch line is divisible *ad infinitum*.

A body moving in the optique axis not perceiv'd to move by sight merely, and without experience. There is ('tis

[1] He here assumes that extension (visible) is implied in the visible idea we call colour.

[2] This strikingly illustrates Berkeley's use of 'idea,' and what he intends when he argues against 'abstract' ideas.

true) a successive change of ideas,—it seems less and less. But, besides this, there is no visible change of place.

Mem. To enquire most diligently concerning the incommensurability of diagonale & side—whether it does not go on the supposition of units being divisible *ad infinitum*, i. e. of the extended thing spoken of being divisible *ad infinitum* (unit being nothing; also v. Barrow, Lect. Geom.), & so the infinite indivisibility deduced therefrom is a *petitio principii?*

The diagonal is commensurable with the side.

M. P. From Malbranch, Locke, & my first arguings it can't be prov'd that extension is not in matter. From Locke's arguings it can't be proved that colours are not in bodies.

Mem. That I was distrustful at 8 years old; and consequently by nature disposed for these new doctrines [1].

Qu. How can a line consisting of an unequal number of points be divisible [*ad infinitum*] in two equals?

Mem. To discuss copiously how & why we do not see the pictures.

M. P. Allowing extensions to exist in matter, we cannot know even their proportions—contrary to Malbranch.

M. I wonder how men cannot see a truth so obvious, as that extension cannot exist without a thinking substance.

M. Species of all sensible things made by the mind. This prov'd either by turning men's eyes into magnifyers or diminishers.

Yr m. v. is, suppose, less than mine. Let a 3rd person have perfect ideas of both our m. vs. His idea of my m. v. contains his idea of yours, & somewhat more. Therefore 'tis made up of parts: therefore his idea of my m. v. is not perfect or just, which diverts the hypothesis.

Qu. Whether a m. v. or t. be extended?

Mem. The strange errours men run into about the pictures. We think them small because should a man be suppos'd to see them their pictures would take up but little room in the fund of his eye.

[1] An interesting autobiographical fact. From childhood he was indisposed to take things on trust.

It seems all lines can't be bisected in 2 equall parts. Mem. To examine how the geometers prove the contrary.

'Tis impossible there should be a m. v. less than mine. If there be, mine may become equal to it (because they are homogeneous) by detraction of some part or parts. But it consists not of parts, ergo &c.

Suppose inverting perspectives bound to y^e^ eyes of a child, & continu'd to the years of manhood—when he looks up, or turns up his head, he shall behold w^t^ we call *under*. Qu. What would he think of *up* and *down*[1]?

M. I wonder not at my sagacity in discovering the obvious tho' amazing truth. I rather wonder at my stupid inadvertency in not finding it out before—'tis no witchcraft to see.

M. Our simple ideas are so many simple thoughts or perceptions; a perception cannot exist without a thing to perceive it, or any longer than it is perceiv'd; a thought cannot be in an unthinking thing; one uniform simple thought can be like to nothing but another uniform simple thought. Complex thoughts or ideas are onely an assemblage of simple ideas, and can be the image of nothing, or like unto nothing, but another assemblage of simple ideas, &c.

M. The Cartesian opinion of light & colours &c. is orthodox enough even in their eyes who think the Scripture expression may favour the common opinion. Why may not mine also? But there is nothing in Scripture that can possibly be wrested to make against me, but, perhaps, many things for me.

M. Bodies &c. do exist whether we think of 'em or no, they being taken in a twofold sense—

1. Collections of thoughts.
2. Collections of powers to cause those thoughts.

These later exist; tho' perhaps *a parte rei* it may be one simple perfect power.

Qu. whether the extension of a plain, look'd at straight and slantingly, survey'd minutely & distinctly, or in the bulk and confusedly at once, be the same? N.B. The plain is suppos'd to keep the same distance.

[1] *Essay on Vision*, sect. 88–119.

The ideas we have by a successive, curious inspection of y^e^ minute parts of a plain do not seem to make up the extension of that plain view'd & consider'd all together.

Ignorance in some sort requisite in y^e^ person that should disown the Principle.

Thoughts do most properly signify, or are mostly taken for the interior operations of the mind, wherein the mind is active. Those y^t^ obey not the acts of volition, and in w^ch^ the mind is passive, are more properly call'd sensations or perceptions. But y^t^ is all a case of words.

Extension being the collection or distinct co-existence of minimums, i.e. of perceptions intromitted by sight or touch, it cannot be conceiv'd without a perceiving substance.

P. Malbranch does not prove that the figures & extensions exist not when they are not perceiv'd. Consequently he does not prove, nor can it be prov'd on his principles, that the sorts are the work of the mind, and onely in the mind.

M. The great argument to prove that extension cannot be in
P. an unthinking substance is, that it cannot be conceiv'd distinct from or without all tangible or visible quality.

M. Tho' matter be extended w^th^ an indefinite extension, yet the mind makes the sorts. They were not before the mind perceiving them, & even now they are not without the mind. Houses, trees, &c., tho' indefinitely extended matter do exist, are not without the mind.

M. The great danger of making extension exist without the mind is, that if it does it must be acknowledg'd infinite, immutable, eternal, &c.;—w^ch^ will be to make either God extended (w^ch^ I think dangerous), or an eternal, immutable, infinite, increate Being beside God.

I. Finiteness of our minds no excuse for the geometers.

M. The Principle easily proved by plenty of arguments *ad absurdum*.

The twofold signification of Bodies, viz.

1. Combinations of thoughts[1];
2. Combinations of powers to raise thoughts[1].

[1] 'thoughts,' i.e. ideas of sense?

These, I say, in conjunction with homogeneous particles, may solve much better the objections from the creation than the supposition that Matter does exist. Upon wch supposition I think they cannot be solv'd.

Bodies taken for powers do exist wn not perceiv'd; but this existence is not actual[1]. Wn I say a power exists, no more is meant than that if in the light I open my eyes, and look that way, I shall see it, i.e. the body, &c.

Qu. whether blind before sight may not have an idea of light and colours & visible extension, after the same manner as we perceive them wth eyes shut, or in the dark—not imagining, but seeing after a sort?

Visible extension cannot be conceiv'd added to tangible extension. Visible and tangible points can't make one sum. Therefore these extensions are heterogeneous.

A probable method propos'd whereby one may judge whether in near vision there is a greater distance between the crystalline & fund than usual, or whether the crystalline be onely render'd more convex. If the former, then the v. s. is enlarg'd, & the m. v. corresponds to less than 30″, or wtever it us'd to correspond to.

Stated measures, inches, feet, &c., are tangible not visible extensions.

M. Locke, More, Raphson, &c. seem to make God extended. 'Tis nevertheless of great use to religion to take extension out of our idea of God, & put a power in its place. It seems dangerous to suppose extension, wch is manifestly inert, in God.

M. But, say you, The thought or perception I call extension is not itself in an unthinking thing or Matter—but it is like something wch is in Matter. Well, say I, Do you apprehend or conceive wt you say extension is like unto, or do you not? If the later, how know you they are alike? How can you compare any things besides your own ideas? If the former, it must be an idea, i.e. perception, thought,

[1] This, in a crude way, is the distinction of δύναμις and ἐνέργεια. It helps to explain Berkeley's meaning, when he occasionally speaks of the ideas or phenomena that appear in the sense experience of different persons as if they were absolutely independent entities.

or sensation—wch to be in an unperceiving thing is a contradiction [1].

I. I abstain from all flourish & powers of words & figures, using a great plainness & simplicity of simile, having oft found it difficult to understand those that use the lofty & Platonic, or subtil & scholastique strain [2].

M. Whatsoever has any of our ideas in it must perceive; it being that very having, that passive recognition of ideas, that denominates the mind perceiving—that being the very essence of perception, or that wherein perception consists.

The faintness wch alters the appearance of the horizontal moon, rather proceeds from the quantity or grossness of the intermediate atmosphere, than from any change of distance, wch is perhaps not considerable enough to be a total cause, but may be a partial of the phenomenon. N.B. The visual angle is less in cause the horizon.

We judge of the distance of bodies, as by other things, so also by the situation of their pictures in the eye, or (wch is the same thing) according as they appear higher or lower. Those wch seem higher are farther off.

Qu. why we see objects greater in ye dark? whether this can be solv'd by any but my Principles?

M. The reverse of ye Principle introduced scepticism.

M. N.B. On my Principles there is a reality: there are things: there is a *rerum natura*.

Mem. The surds, doubling the cube, &c.

We think that if just made to see we should judge of the distance & magnitude of things as we do now; but this is false. So also wt we think so positively of the situation of objects.

Hays's, Keill's [3], &c. method of proving the infinitesimals of the 3d order absurd, & perfectly contradictions.

[1] To be 'in an unperceiving thing,' i.e. to be real, yet unperceived. Whatever is perceived is, because realised only through a percipient act, an *idea*—in Berkeley's use of the word.

[2] This as to the 'Platonic strain' is not in the tone of *Siris*.

[3] John Keill (1671–1721), an eminent mathematician, educated at the University of Edinburgh; in 1710 Savilian Professor of Astronomy at Oxford, and the first to teach the Newtonian philosophy in

Angles of contact, & verily all angles comprehended by a right line & a curve, cannot be measur'd, the arches intercepted not being similar.

The danger of expounding the H. Trinity by extension.

M. P. Qu. Why should the magnitude seen at a near distance be deem'd the true one rather than that seen at a farther distance? Why should the sun be thought many 1000 miles rather than one foot in diameter—both being equally apparent diameters? Certainly men judg'd of the sun not in himself, but wth relation to themselves.

M. 4 Principles whereby to answer objections, viz.

1. Bodies do really exist, tho' not perceiv'd by us.
2. There is a law or course of nature.
3. Language & knowledge are all about ideas; words stand for nothing else.
4. Nothing can be a proof against one side of a contradiction that bears equally hard upon the other [1].

What shall I say? Dare I pronounce the admired ἀκρίβεια mathematica, that darling of the age, a trifle?

Most certainly no finite extension divisible *ad infinitum.*

M. Difficulties about concentric circles.

N. Mem. To examine & accurately discuss the scholium of the 8th definition of Mr. Newton's [2] Principia.

Ridiculous in the mathematicians to despise Sense.

Qu. Is it not impossible there should be abstract general ideas?

All ideas come from without. They are all particular. The mind, 'tis true, can consider one thing wthout another; but then, considered asunder, they make not 2 ideas. Both together can make but one, as for instance colour & visible extension [3].

that University. In 1708 he was engaged in a controversy in support of Newton's claims to the discovery of the method of fluxions.

[1] This suggests a negative argument for Kant's antinomies, and for Hamilton's law of the conditioned.

[2] Newton became Sir Isaac on April 16, 1705. Was this written before that date?

[3] These may be *considered* separately, but not *pictured* as such.

The end of a mathematical line is nothing. Locke's argument that the end of his pen is black or white concludes nothing here.

Mem. Take care how you pretend to define extension, for fear of the geometers.

Qu. Why difficult to imagine a minimum? Ans. Because we are not used to take notice of 'em singly; they not being able singly to pleasure or hurt us, thereby to deserve our regard.

Mem. To prove against Keill y^{t} the infinite divisibility of matter makes the half have an equal number of equal parts with the whole.

Mem. To examine how far the not comprehending infinites may be admitted as a plea.

Qu. Why may not the mathematicians reject all the extensions below the M. as well as the dd^{s}, &c., w^{ch} are allowed to be something, & consequently may be magnify'd by glasses into inches, feet, &c., as well as the quantities next below the M.?

Big, little, and number are the works of the mind. How therefore can y^{e} extension you suppose in Matter be big or little? How can it consist of any number of points?

P. Mem. Strictly to remark L[ocke], b. 2. c. 8. s. 8.

Schoolmen compar'd with the mathematicians.

Extension is blended wth tangible or visible ideas, & by the mind præscinded therefrom.

Mathematiques made easy—the scale does almost all. The scale can tell us the subtangent in y^{e} parabola is double the abscisse.

W^{t} need of the utmost accuracy w^{n} the mathematicians own *in rerum natura* they cannot find anything corresponding wth their nice ideas.

One should endeavour to find a progression by trying wth the scale.

Newton's fluxions needless. Anything below an M might serve for Leibnitz's Differential Calculus.

How can they hang together so well, since there are in them (I mean the mathematiques) so many *contradictoriæ argutiæ*. V. Barrow, Lect.

A man may read a book of Conics with ease, knowing how to try if they are right. He may take 'em on the credit of the author.

Where's the need of certainty in such trifles? The thing that makes it so much esteem'd in them is that we are thought not capable of getting it elsewhere. But we may in ethiques and metaphysiques.

The not leading men into mistakes no argument for the truth of the infinitesimals. They being nothings may perhaps do neither good nor harm, except w^n^ they are taken for something, & then the contradiction begets a contradiction.

a + 500 nothings = a + 50 nothings—an innocent silly truth.

M. My doctrine excellently corresponds w^th^ the creation. I suppose no matter, no stars, sun, &c. to have existed before [1].

It seems all circles are not similar figures, there not being the same proportion betwixt all circumferences & their diameters.

When a small line upon paper represents a mile, the mathematicians do not calculate the $\frac{1}{10000}$ of the paper line, they calculate the $\frac{1}{10000}$ of the mile. 'Tis to this they have regard, 'tis of this they think; if they think or have any idea at all. The inch perhaps might represent to their imaginations the mile, but y^e^ $\frac{1}{10000}$ of the inch cannot be made to represent anything, it not being imaginable.

But the $\frac{1}{10000}$ of a mile being somewhat, they think the $\frac{1}{10000}$ of the inch is somewhat: w^n^ they think of y^t^ they imagine they think on this.

3 faults occur in the arguments of the mathematicians for divisibility *ad infinitum*—

1. They suppose extension to exist without the mind, or not perceived.
2. They suppose that we have an idea of length without breadth [2], or that length without breadth does exist.
3. That unity is divisible *ad infinitum*.

To suppose a M. S. divisible is to say there are distinguishable ideas where there are no distinguishable ideas.

[1] In as far as they have not been sensibly realised in finite percipient mind.

[2] [Or rather that invisible lengt does exist.]—AUTHOR, on margin.

The M. S. is not near so inconceivable as the *signum in magnitudine individuum.*

Mem. To examine the math. about their *point*—what it is—something or nothing; and how it differs from the M. S.

All might be demonstrated by a new method of indivisibles, easier perhaps and juster than that of Cavalierius [1].

M. P. G. Unperceivable perception a contradiction.

Proprietates reales rerum omnium in Deo, tam corporum quum spirituum continentur. Clerici, Log. cap. 8.

Let my adversaries answer any one of mine, I'll yield. If I don't answer every one of theirs, I'll yield.

The loss of the excuse [2] may hurt Transubstantiation, but not the Trinity.

We need not strain our imaginations to conceive such little things. Bigger may do as well for infinitesimals, since the integer must be an infinite.

Evident y^{t} w^{ch} has an infinite number of parts must be infinite.

Qu. Whether extension be resoluble into points it does not consist of?

Nor can it be objected that we reason about numbers, w^{ch} are only words & not ideas [3]; for these infinitesimals are words of no use, if not supposed to stand for ideas.

Axiom. No reasoning about things whereof we have no idea. Therefore no reasoning about infinitesimals.

Much less infinitesimals of infinitesimals, &c.

Axiom. No word to be used without an idea.

M. P. Our eyes and senses inform us not of the existence of matter or ideas existing without the mind [4]. They are not to be blam'd for the mistake.

[1] Bonaventura Cavalieri (1598–1647), the Italian mathematician. His *Geometry of Indivisibles* (1635) prepared the way for the Calculus.

[2] [By 'the excuse' is meant the finiteness of our mind—making it possible for contradictions to appear true to us.]—AUTHOR, on margin.

[3] He allows elsewhere that words with meanings not realisable in imagination, i. e. in the form of idea, may discharge a useful office. See *Principles*, Introduction, sect. 20.

[4] We do not perceive unperceived matter, but only matter realised in living perception—the percipient act being the factor of its reality.

I defy any man to assign a right line equal to a paraboloid, but w^n look'd at thro' a microscope they may appear unequall.

M. Newton's harangue amounts to no more than that gravity is proportional to gravity.

One can't imagine an extended thing without colour. V. Barrow, L. G.

P. Men allow colours, sounds, &c.[1] not to exist without the mind, tho' they have no demonstration they do not. Why may they not allow my Principle with a demonstration?

M. Qu. Whether I had not better allow colours to exist
P. without the mind; taking the mind for the active thing w^ch I call 'I,' 'myself'—y^t seems to be distinct from the understanding[2]?

P. The taking extension to be distinct from all other tangible & visible qualities, & to make an idea by itself, has made men take it to be without the mind.

I see no wit in any of them but Newton. The rest are meer triflers, mere Nihilarians.

The folly of the mathematicians in not judging of sensations by their senses. Reason was given us for nobler uses.

M. Keill's filling the world with a mite[3]. This follows from the divisibility of extension *ad infinitum*.

Extension, or length without breadth, seems to be nothing save the number of points that lie betwixt any 2 points[4]. It seems to consist in meer proportion—meer reference of the mind.

To what purpose is it to determine the forms of glasses geometrically?

Sir Isaac[5] owns his book could have been demonstrated on the supposition of indivisibles.

M. Innumerable vessels of matter. V. Cheyne.

I'll not admire the mathematicians. 'Tis w^t any one of

[1] The secondary qualities of things.

[2] Because, while dependent on percipient sense, they are independent of *my* personal will, being determined to appear under natural law, by Divine agency.

[3] Keill's *Introductio ad veram Physicam* (Oxon. 1702)—Lectio 5—a curious work, dedicated to the Earl of Pembroke.

[4] [Extension without breadth—i. e. insensible, intangible length—is not conceivable. 'Tis a mistake we are led into by the doctrine of abstraction.]—AUTHOR, on margin of MS.

[5] Here 'Sir Isaac.' Hence written after April, 1705.

common sense might attain to by repeated acts. I prove it by experience. I am but one of human sense, and I &c.

Mathematicians have some of them good parts—the more is the pity. Had they not been mathematicians they had been good for nothing. They were such fools they knew not how to employ their parts.

The mathematicians could not so much as tell wherein truth & certainty consisted, till Locke told 'em [1]. I see the best of 'em talk of light and colours as if w^th^out the mind.

By *thing* I either mean ideas or that w^ch^ has ideas [2].

Nullum præclarum ingenium unquam fuit magnus mathematicus. Scaliger [3].

A great genius cannot stoop to such trifles & minutenesses as they consider.

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1. [4] All significant words stand for ideas [5].
2. All knowledge about our ideas.
3. All ideas come from without or from within.
4. If from without it must be by the senses, & they are call'd sensations [6].
5. If from within they are the operations of the mind, & are called thoughts.
6. No sensation can be in a senseless thing.
7. No thought can be in a thoughtless thing.
8. All our ideas are either sensations or thoughts [7], by 3, 4, 5.
9. None of our ideas can be in a thing w^ch^ is both thoughtless & senseless [8], by 6, 7, 8.
10. The bare passive recognition or having of ideas is called perception.
11. Whatever has in it an idea, tho' it be never so passive, tho' it exert no manner of act about it, yet it must perceive. 10.

[1] *Essay*, Bk. IV. ch. iv. sect. 18; ch. v. sect. 3, &c.

[2] He applies *thing* to self-conscious persons as well as to passive objects of sense.

[3] *Scaligerana Secunda*, p. 270.

[4] [These arguments must be proposed shorter and more separate in the Treatise.]—AUTHOR, on margin.

[5] 'Idea' here used in its wider meaning—for 'operations of mind,' as well as for sense presented phenomena that are independent of individual will. Cf. *Principles*, sect. 1.

[6] 'sensations,' i. e. objective phenomena presented in sense.

[7] See *Principles*, sect. 1.

[8] See *Principles*, sect. 2.

12. All ideas either are simple ideas, or made up of simple ideas.

13. That thing w^{ch} is like unto another thing must agree wth it in one or more simple ideas.

14. Whatever is like a simple idea must either be another simple idea of the same sort, or contain a simple idea of the same sort. 13.

15. Nothing like an idea can be in an unperceiving thing. 11, 14. Another demonstration of the same thing.

16. Two things cannot be said to be alike or unlike till they have been compar'd.

17. Comparing is the viewing two ideas together, & marking w^{t} they agree in and w^{t} they disagree in.

18. The mind can compare nothing but its own ideas. 17.

19. Nothing like an idea can be in an unperceiving thing. 11, 16, 18.

N.B. Other arguments innumerable, both *a priori* & *a posteriori*, drawn from all the sciences, from the clearest, plainest, most obvious truths, whereby to demonstrate the Principle, i. e. that neither our ideas, nor anything like our ideas, can possibly be in an unperceiving thing [1].

N.B. Not one argument of any kind w^{t}soever, certain or probable, *a priori* or *a posteriori*, from any art or science, from either sense or reason, against it.

Mathematicians have no right idea of angles. Hence angles of contact wrongly apply'd to prove extension divisible *ad infinitum*.

We have got the Algebra of pure intelligences.

We can prove Newton's propositions more accurately, more easily, & upon truer principles than himself [2].

Barrow owns the downfall of geometry. However I'll endeavour to rescue it—so far as it is useful, or real, or imaginable, or intelligible. But for *the nothings*, I'll leave them to their admirers.

[1] An 'unperceiving thing' cannot be the factor of material reality.

[2] [To the utmost accuracy, wanting nothing of perfection. *Their* solutions of problems, themselves must own to fall infinitely short of perfection.]—AUTHOR, on margin.

I'll teach any one the whole course of mathematiques in $\frac{1}{100}$ part the time that another will.

Much banter got from the prefaces of the mathematicians.

P. Newton says colour is in the subtil matter. Hence Malbranch proves nothing, or is mistaken, in asserting there is onely figure & motion.

I can square the circle, &c.; they cannot. W^ch goes on the best principles?

The Billys[1] use a finite visible line for an $\frac{1}{m}$.

T. Marsilius Ficinus—his appearing the moment he died solv'd by my idea of time[2].

M. The philosophers lose their abstract or unperceived Matter. The mathematicians lose their insensible sensations. The profane [lose] their extended Deity. Pray w^t do the rest of mankind lose? As for bodies, &c., we have them still[3].

N.B. The future nat. philosoph. & mathem. get vastly by the bargain[4].

P. There are men who say there are insensible extensions. There are others who say the wall is not white, the fire is not hot, &c. We Irishmen cannot attain to these truths.

The mathematicians think there are insensible lines. About these they harangue: these cut in a point at all angles: these are divisible *ad infinitum*. We Irishmen can conceive no such lines.

The mathematicians talk of w^t they call a point. This, they say, is not altogether nothing, nor is it downright something. Now we Irishmen are apt to think something[5] & nothing are next neighbours.

Engagements to P.[6] on account of y^e Treatise that grew up under his eye; on account also of his approving my

[1] Jean de Billy and René de Billy, French mathematicians—the former author of *Nova Geometriæ Clavis* and other mathematical works.

[2] According to Baronius, in the fifth volume of his 'Annals,' Ficinus appeared after death to Michael Mercatus—agreeably to a promise he made when he was alive—to assure him of the life of the human spirit after the death of the body.

[3] So far as we are factors of their reality, in sense and in science, or can be any practical way concerned with them.

[4] Cf. *Principles*, sect. 101–34.

[5] 'something,' i. e. *abstract* something.

[6] Lord Pembroke (?)—to whom the *Principles* were dedicated. and to whom Locke dedicated his *Essay*.

harangue. Glorious for P. to be the protector of usefull tho' newly discover'd truths.

How could I venture thoughts into the world before I knew they would be of use to the world? and how could I know that till I had try'd how they suited other men's ideas?

I publish not this so much for anything else as to know whether other men have the same ideas as we Irishmen. This is my end, & not to be inform'd as to my own particular.

My speculations have the same effect as visiting foreign countries: in the end I return where I was before, but my heart at ease, and enjoying life with new satisfaction.

Passing through all the sciences, though false for the most part, yet it gives us the better insight and greater knowledge of the truth.

He that would bring another over to his opinion, must seem to harmonize with him at first, and humour him in his own way of talking [1].

From my childhood I had an unaccountable turn of thought that way [1].

It doth not argue a dwarf to have greater strength than a giant, because he can throw off the molehill which is upon him, while the other struggles beneath a mountain.

The whole directed to practise and morality—as appears 1st, from making manifest the nearness and omnipresence of God; 2dly, from cutting off the useless labour of sciences, and so forth.

[1] This is an interesting example of a feature that is conspicuous in Berkeley—the art of 'humouring an opponent in his own way of thinking,' which it seems was an early habit. It is thus that he insinuates his New Principles in the *Essay on Vision*, and so prepares to unfold and defend them in the book of *Principles* and the three *Dialogues*—straining language to reconcile them with ordinary modes of speech.

AN ESSAY

TOWARDS

A NEW THEORY OF VISION

First published in 1709

EDITOR'S PREFACE

TO THE

ESSAY TOWARDS A NEW THEORY OF VISION

BERKELEY'S *Essay towards a New Theory of Vision* was meant to prepare the way for the exposition and defence of the new theory of the material world, its natural order, and its relation to Spirit, that is contained in his book of *Principles* and in the relative *Dialogues*, which speedily followed. The *Essay* was the firstfruits of his early philosophical studies at Dublin. It was also the first attempt to show that our apparently immediate Vision of Space and of bodies extended in three-dimensioned space, is either tacit or conscious inference, occasioned by constant association of the phenomena of which alone we are visually percipient with assumed realities of our tactual and locomotive experience.

The first edition of the *Essay* appeared early in 1709, when its author was about twenty-four years of age. A second edition, with a few verbal changes and an Appendix, followed before the end of that year. Both were issued in Dublin, 'printed by Aaron Rhames, at the back of

Dick's Coffeehouse, for Jeremy Pepyat, bookseller in Skinner Row.' In March, 1732, a third edition, without the Appendix, was annexed to *Alciphron*, on account of its relation to the Fourth Dialogue in that book. This was the author's last revision.

In the present edition the text of this last edition is adopted, after collation with those preceding. The Appendix has been restored, and also the Dedication to Sir John Percival, which appeared only in the first edition.

A due appreciation of Berkeley's theory of seeing, and his conception of the visible world, involves a study, not merely of this tentative juvenile *Essay*, but also of its fuller development and application in his more matured works. This has been commonly forgotten by his critics.

Various circumstances contribute to perplex and even repel the reader of the *Essay*, making it less fit to be an easy avenue of approach to Berkeley's *Principles*.

Its occasion and design, and its connexion with his spiritual conception of the material world, are suggested in Sections 43 and 44 of the *Principles*. Those sections are a key to the *Essay*. They inform us that in the *Essay* the author intentionally uses language which seems to attribute a reality independent of all percipient spirit to the ideas or phenomena presented in Touch; it being beside his purpose, he says, to 'examine and refute' that 'vulgar error' in 'a work on Vision.' This studied reticence of a verbally paradoxical conception of Matter, in reasonings about vision which are fully intelligible only under that conception, is one cause of a want of philosophical lucidity in the *Essay*.

Another circumstance adds to the embarrassment of those who approach the *Principles* and the three *Dialogues* through the *Essay on Vision*. The *Essay* offers no exception to the lax employment of equivocal words familiar in the early literature of English philosophy,

but which is particularly inconvenient in the subtle discussions to which we are here introduced. At the present day we are perhaps accustomed to more precision and uniformity in the philosophical use of language; at any rate we connect other meanings than those here intended with some of the leading words. It is enough to refer to such terms as *idea, notion, sensation, perception, touch, externality, distance,* and their conjugates. It is difficult for the modern reader to revive and remember the meanings which Berkeley intends by *idea* and *notion*—so significant in his vocabulary; and *touch* with him connotes muscular and locomotive experience as well as the pure sense of contact. Interchange of the terms *outward, outness, externality, without the mind,* and *without the eye* is confusing, if we forget that Berkeley implies that percipient mind is virtually coextensive with our bodily organism, so that being 'without' or 'at a distance from' our bodies is being at a distance from the percipient mind. I have tried in the annotations to relieve some of these ambiguities, of which Berkeley himself warns us (cf. sect. 120).

The *Essay* moreover abounds in repetitions, and interpolations of antiquated optics and physiology, so that its logical structure and even its supreme generalisation are not easily apprehended. I will try to disentangle them.

The reader must remember that this *Essay on Vision* is professedly an introspective appeal to human consciousness. It is an analysis of what human beings are conscious of when they see, the results being here and there applied, partly by way of verification, to solve some famous optical or physiological puzzle. The aim is to present the facts, the whole facts, and nothing but the facts of our internal visual experience, as distinguished from supposed facts and empty abstractions, which an irregular exercise of imagination, or abuse of words, had put in their place.

The investigation, moreover, is not concerned with Space in its metaphysical infinity, but with finite sections of Space and their relations, which concern the sciences, physical and mathematical, and with real or tangible Distance, Magnitude, and Place, in their relation to seeing.

From the second section onwards the *Essay* naturally falls into six Parts, devoted successively to the proof of the six following theses regarding the relation of Sight to finite spaces and to things extended :—

I. (Sect. 2–51.) Distance, or outness from the eye in the line of vision, is not seen : it is only suggested to the mind by visible phenomena and by sensations felt in the eye, all which are somehow its arbitrarily constituted and non-resembling Signs.

II. (Sect. 52–87.) Magnitude, or the amount of space that objects of sense occupy, is really invisible : we only see a greater or less quantity of colour, and colour depends upon percipient mind : our supposed visual perceptions of real magnitude are only our own interpretations of the tactual meaning of the colours we see, and of sensations felt in the eye, which are its Signs.

III. (Sect. 88–120.) Situation of objects of sense, or their real relation to one another in ambient space, is invisible : what we see is variety in the relations of colours to one another : our supposed vision of real tangible locality is only our interpretation of its visual non-resembling Signs.

IV. (Sect. 121–46.) There is no object that is presented in common to Sight and Touch : space or extension, which has the best claim to be their common object, is specifically as well as numerically different in Sight and in Touch.

V. (Sect. 147–48.) The explanation of the tactual significance of the visible and visual Signs, upon which human experience proceeds, is offered in the Theory that all visible phenomena are arbitrary signs in what is virtually

the Language of Nature, addressed by God to the senses and intelligence of Man.

VI. (Sect. 149-60.) The true object studied in Geometry is the kind of Extension given in Touch, not that given in Sight: real Extension in all its phases is tangible, not visible: colour is the only immediate object of Sight, and colour being mind-dependent sensation, cannot be realised without percipient mind. These concluding sections are supplementary to the main argument.

The fact that distance or outness is invisible is sometimes regarded as Berkeley's contribution to the theory of seeing. It is rather the assumption on which the *Essay* proceeds (sect. 2). The *Essay* does not prove this invisibility, but seeks to shew how, notwithstanding, we learn to find outness through seeing. That the relation between the visual signs of outness, on the one hand, and the real distance which they signify, on the other, is in all cases arbitrary, and discovered through experience, is the burden of sect. 2-40. The previously recognised signs of 'considerably remote' distances, are mentioned (sect. 3). But *near* distance was supposed to be inferred by a visual geometry—and to be 'suggested,' not signified by arbitrary signs. The determination of the visual signs which suggest outness, near and remote, is Berkeley's professed discovery regarding vision.

An induction of the visual signs which 'suggest' distance, is followed (sect. 43) by an assertion of the wholly sensuous reality of *colour*, which is acknowledged to be the only immediate object of sight. Hence *visible* extension, consisting in colour, must be dependent for its realisation upon sentient or percipient mind. It is then argued (sect. 44) that this mind-dependent visible outness has no resemblance to the tangible reality (sect. 45). This is the first passage in the *Essay* in which Touch and its data are formally brought into view. Tactual or

locomotive experience, it is implied, is needed to infuse true reality into our conceptions of distance or outness. This cannot be got from seeing any more than from hearing, or tasting, or smelling. It is as impossible to see and touch the same object as it is to hear and touch the same object. Visible objects and ocular sensations can only be *ideal signs* of *real things*.

The sections in which Touch is thus introduced are among the most important in the *Essay*. They represent the outness given in hearing as wholly sensuous, ideal, or mind-dependent: they recognise as more truly real that got by contact and locomotion. But if this is all that man can see, it follows that his *visible* world, at any rate, becomes real only in and through percipient mind. The problem of an *Essay on Vision* is thus, to explain *how* the visible world of extended colour can inform us of tangible realities, which it does not in the least resemble, and with which it has no *necessary* connexion. That visible phenomena, or else certain organic sensations involved in seeing (sect. 3, 16, 21, 27), gradually *suggest* the real or tangible outness with which they are connected in the divinely constituted system of nature, is the explanation which now begins to dawn upon us.

Here an ambiguity in the *Essay* appears. It concludes that the *visible* world cannot be real without percipient realising mind, i.e. not otherwise than ideally: yet the argument seems to take for granted that we are percipient of a *tangible* world that is independent of percipient realising mind. The reader is apt to say that the tangible world must be as dependent on percipient mind for its reality as the visible world is concluded to be, and for the same reason. This difficulty was soon afterwards encountered in the book of *Principles*, where the worlds of sight and touch are put on the same level; and the possibility of unperceived reality in both cases is denied; on the ground that a material world cannot be realised in the total

absence of Spirit—human and divine. The term 'external' may still be applied to tactual and locomotive phenomena alone, if men choose; but this not because of the ideal character of what is seen, and the unideal reality of what is touched, but only because tactual perceptions are found to be more firm and steady than visual. Berkeley preferred in this way to *insinuate* his new conception of the material world by degrees, at the risk of exposing this juvenile and tentative *Essay on Vision* to a charge of incoherence.

The way in which visual ideas or phenomena 'suggest' the outness or distance of things from the organ of sight having been thus explained, in what I call the First Part of the *Essay*, the Second and Third Parts (sect. 52–120) argue for the invisibility of real extension in two other relations, viz. magnitude and locality or situation. An induction of the visual signs of tangible size and situation is given in those sections. The result is applied to solve two problems then notable in optics, viz. (1) the reason for the greater visible size of the horizontal moon than of the moon in its meridian (sect. 67–87); and (2) the fact that objects are placed erect in vision only on condition that their images on the retina are inverted (sect. 88–120). Here the antithesis between the ideal world of coloured extension, and the real world of resistant extension is pressed with vigour. The 'high' and 'low' of the visible world is not the 'high' and 'low' of the tangible world (sect. 91–106). There is no resemblance and no necessary relation, between those two so-called extensions; not even when the number of visible objects happen to coincide with the number of tangible objects of which they are the visual signs, e.g. the visible and tangible fingers on the hand: for the born-blind, on first receiving sight, could not parcel out the visible phenomena in correspondence with the tangible.

The next Part of the *Essay* (sect. 121–45) argues for a specific as well as a numerical difference between the original data of sight and the data of touch and locomotion. Sight and touch perceive nothing in common. Extension in its various relations differs in sight from extension in touch. Coloured extension, which alone is visible, is found to be different in kind from resistant extension, which alone is tangible. And if actually perceived or concrete extensions differ thus, the question is determined. For all extension with which man can be concerned must be concrete (sect. 23). Extension in the abstract is meaningless (sect. 124–25). What remains is to marshal the scattered evidence, and to guard the foregoing conclusions against objections. This is attempted in sections 128–46.

The enunciation of the summary generalisation, which forms the 'New Theory of Vision' (sect. 147–8), may be taken as the Fifth and culminating Part of the *Essay*.

The closing sections (149–60), as I have said, are supplementary, and profess to determine the sort of extension—visible or tangible—with which Geometry is concerned. In concluding that it is tangible, he tries to picture the mental state of Idominians, or unbodied spirits, endowed with visual perceptions *only*, and asks what *their* conception of outness and solid extension must be. Here further refinements in the interpretation of visual perception, and its organic conditions, which have not escaped the attention of latter psychologists and biologists, are hinted at.

Whether the data of sight consist of non-resembling arbitrary Signs of the tactual distances, sizes, and situations of things, is a question which some might prefer to deal with experimentally—by trial of the experience of persons in circumstances fitted to supply an answer.

Of this sort would be the experience of the born-blind, immediately after their sight has been restored; the conception of extension and its relations found in persons who continue from birth unable to see; the experience (if it could be got) of persons always destitute of all tactual and locomotive perceptions, but familiar with vision; and the facts of seeing observed in infants of the human species, and in the lower animals.

Berkeley did not try to verify his conclusions in this way. Here and there (sect. 41, 42, 79, 92–99, 103, 106, 110, 128, 132–37), he conjectures what the first visual experience of those rescued from born-blindness is likely to be; he also speculates, as we have seen, about the experience of unbodied spirits supposed to be able to see, but unable to touch or move (sect. 153–59); and in the Appendix he refers, in confirmation of his New Theory, to a reported case of one born blind who had obtained sight. But he forms his Theory independently of those delicate and difficult investigations. His testing facts were sought introspectively. Indeed those physiologists and mental philosophers who have since tried to determine what vision in its purity is, by cases either of communicated sight or of continued born-blindness, have illustrated the truth of Diderot's remark—'préparer et interroger un aveugle-né n'eût point été une occupation indigne des talens réunis de Newton, Des Cartes, Locke, et Leibniz[1].'

Berkeley's *New Theory* has been quoted as a signal example of discovery in metaphysics. The subtle analysis which distinguishes *seeing* strictly so called, from judgments about extended things, suggested by what we see,

[1] In Diderot's *Lettre sur les aveugles, à l'usage de ceux qui voient*, where Berkeley, Molyneux, Condillac, and others are mentioned. Cf. also Appendix, pp. 111, 112; and *Theory of Vision Vindicated*, sect. 71, with the note, in which some recorded experiments are alluded to.

appears to have been imperfectly known to the ancient philosophers. Aristotle, indeed, speaks of colour as the only proper object of sight; but, in passages of the *De Anima*[1] where he names properties peculiar to particular senses, he enumerates others, such as motion, figure, and magnitude, which belong to all the senses in common. His distinction of Proper and Common Sensibles appears at first to contradict Berkeley's doctrine of the heterogeneity of the ideal visible and the real tangible worlds. Aristotle, however, seems to question the immediate perceptibility of Common Sensibles, and to regard them as realised through the activity of intelligence[2].

Some writers in Optics, in mediaeval times, and in early modern philosophy, advanced beyond Aristotle, in explaining the relation of our matured notion of distance to what we originally perceive in seeing, and in the fifteenth century it was discovered by Maurolyco that the rays of light from the object converge to a focus in the eye; but I have not been able to trace even the germ of the *New Theory* in these speculations.

Excepting some hints by Descartes, Malebranche was among the first dimly to anticipate Berkeley, in resolving our supposed power of seeing outness into an interpretation

[1] *De Anima*, II. 6, III. 1, &c. Aristotle assigns a pre-eminent intellectual value to the sense of sight. See, for instance, his *Metaphysics*, I. 1.

[2] Sir A. Grant (*Ethics of Aristotle*, vol. II. p. 172) remarks, as to the doctrine that the Common Sensibles are apprehended concomitantly by the senses, that: 'this is surely the true view; we see in the apprehension of number, figure, and the like, not an operation of sense, but the mind putting its own forms and categories, i. e. itself, on the external object. It would follow then that the senses cannot really be separated from the mind; the senses and the mind each contribute an element to every knowledge. Aristotle's doctrine of *κοινὴ αἴσθησις* would go far, if carried out, to modify his doctrine of the simple and innate character of the senses, e. g. sight (cf. *Eth.* II. 1, 4), and would prevent its collision with Berkeley's *Theory of Vision*.'—See also Sir W. Hamilton, *Reid's Works*, pp. 828–830.

Dugald Stewart (*Collected Works*, vol. I. p. 341, note) quotes Aristotle's *Ethics*, II. 1, as evidence that Berkeley's doctrine, 'with respect to the acquired perceptions of sight, was quite unknown to the best metaphysicians of antiquity.'

of visual signs which we learn by experience to understand. The most important part of Malebranche's account of seeing is contained in the *Recherche de la Vérité* (Liv. I. ch. 9), in one of those chapters in which he discusses the frequent fallaciousness of the senses, and in particular of our visual perceptions of extension. He accounts for their inevitable uncertainty by assigning them not to sense but to misinterpretation of what is seen. He also enumerates various visual signs of distance.

That the *Recherche* of Malebranche, published more than thirty years before the *Essay*, was familiar to Berkeley before the publication of his *New Theory*, is proved by internal evidence, and by his juvenile *Commonplace Book*. I am not able to discover signs of a similar connexion between the *New Theory* and the chapter on the mystery of sensation in Glanvill's *Scepsis Scientifica* (ch. 5), published some years before the *Recherche* of Malebranche, where Glanvill refers to 'a secret deduction,' through which—from motions, &c., of which we are immediately percipient—we 'spell out' figures, distances, magnitudes, and colours, which have no resemblance to them.

An approach to the *New Theory* is found in a passage which first appeared in the second edition of Locke's *Essay*, published in 1694, to which Berkeley refers in his own *Essay* (sect. 132–35), and which, on account of its relative importance, I shall here transcribe at length :—

'We are further to consider concerning Perception that the ideas we receive by sensation are often, in grown people, altered by the judgment, without our taking notice of it. When we set before our eyes a round globe of any uniform colour, e.g. gold, alabaster, or jet, it is certain that the idea thereby imprinted in our mind is of a flat circle, variously shadowed, with several degrees of light and brightness coming to our eyes. But, we having by use been accustomed to perceive what kind of appearance convex bodies are wont to make in us, what alterations are made

in the reflection of light by the difference in the sensible figures of bodies—the judgment presently, by an habitual custom, alters the appearances into their causes; so that, from that which is truly variety of shadow or colour, collecting the figure, it makes it pass for a mark of figure, and frames to itself the perception of a convex figure and an uniform colour, when the idea we receive from them is only a plane variously coloured, as is evident in painting.

'To which purpose I shall here insert a problem of that very ingenious and studious promoter of real knowledge, the learned and worthy Mr. Molyneux, which he was pleased to send me in a letter some months since, and it is this:—Suppose a man born blind, and now adult, and taught by his touch to distinguish between a cube and a sphere of the same metal, and nighly of the same bigness, so as to tell, when he felt the one and the other, which is the cube and which the sphere. Suppose then the cube and the sphere placed on a table, and the blind man be made to see: quere, whether, by his sight, before he touched them, he could not distinguish and tell, which is the globe and which the cube? To which the acute and judicious proposer answers: "Not." For, though he has obtained the experience of how a globe, how a cube affects his touch; yet he has not obtained the experience that what affects his touch so and so, must affect his sight so and so; so that a protuberant angle in the cube, that pressed his hand unequally, shall appear to his eye as it does in the cube.—I agree with this thinking gentleman, whom I am proud to call my friend, in his answer to this his problem, and am of opinion that the blind man, at first sight, would not be able to say with certainty which was the globe and which the cube, whilst he only saw them; though he would unerringly name them by his touch, and certainly distinguish them by the difference in their figures felt.

'This I have set down, and leave with my reader, as an

occasion for him to consider how much he may be beholden to experience, improvement, and acquired notions, where he thinks he had not the least use of, or help from them: and the rather because this observing gentleman further adds that, having, upon the occasion of my book, proposed this problem to divers very ingenious men, he hardly ever met with one that at first gave the answer to it which he thinks true, till by hearing his reasons they were convinced.

'But this is not I think usual in any of our ideas but those received by sight: because sight, the most comprehensive of the senses, conveying to our minds the ideas of light and colours, which are peculiar only to that sense; and also the far different ideas of space, figure, and motion, the several varieties of which change the appearance of its proper object, i.e. light and colours; we bring ourselves by use to judge of the one by the other. This, in many cases, by a settled habit, in things whereof we have frequent experience, is performed so constantly and so quick, that we take that for the perception of our sensation, which is an idea formed by our judgment; so that one, i.e. that of sensation, serves only to excite the other, and is scarce taken notice of itself; as a man who reads or hears with attention and understanding takes little notice of the character or sounds, but of the ideas that are excited in him by them.

'Nor need we wonder that this is done with so little notice, if we consider how very quick the actions of the mind are performed; for, as itself is thought to take up no space, to have no extension, so its actions seem to require no time, but many of them seem to be crowded into an instant. I speak this in comparison of the actions of the body. . . . Secondly, we shall not be much surprised that this is done with us in so little notice, if we consider how the facility we get of doing things, by a custom of doing, makes them often pass in us without notice. Habits,

especially such as are begun very early, come at last to produce actions in us which often escape our observation. . . . And therefore it is not so strange that our mind should often change the idea of its sensation into that of its judgment, and make the one serve only to excite the other, without our taking notice of it.' (*Essay concerning Human Understanding*, Book II. ch. 9. § 8.)

This remarkable passage anticipates by implication the view of an interpretation of materials originally given in the visual sense, which, under the name of 'suggestion,' is the ruling factor in the *New Theory of Vision.*

The following sentences relative to the invisibility of distances, contained in the *Treatise of Dioptrics* (published in 1690) of Locke's friend and correspondent William Molyneux, whose son was Berkeley's pupil, illustrate Locke's statements, and may be compared with the opening sections of the *Essay on Vision* :—

'In plain vision the estimate we make of the distance of objects (especially when so far removed that the interval between our two eyes bears no sensible proportion thereto, or when looked upon with one eye only) is rather the act of our judgment than of sense ; and acquired by exercise, and a faculty of comparing, rather than natural. For, distance of itself is not to be perceived ; for, 'tis a line (or a length) presented to our eye with its end toward us, which must therefore be only a point, and that is invisible. Wherefore distance is chiefly perceived by means of interjacent bodies, as by the earth, mountains, hills, fields, trees, houses, &c. Or by the estimate we make of the comparative magnitude of bodies, or of their faint colours, &c. These I say are the chief means of apprehending the distance of objects that are considerably remote. But as to nigh objects—to whose distance the interval of the eyes bears a sensible proportion—their distance is perceived by the turn of the eyes, or by the angle of the optic axes (*Gregorii Opt. Promot.* prop. 28). This was the opinion of the ancients,

Alhazen, Vitellio, &c. And though the ingenious Jesuit Tacquet (*Opt. Lib. I.* prop. 2) disapprove thereof, and objects against it a new notion of Gassendus (of a man's seeing only with one eye at a time one and the same object), yet this notion of Gassendus being absolutely false (as I could demonstrate were it not beside my present purpose), it makes nothing against this opinion.

'Wherefore, distance being only a line and not of itself perceivable, if an object were conveyed to the eye by one single ray only, there were no other means of judging of its distance but by some of those hinted before. Therefore when we estimate the distance of nigh objects, either we take the help of both eyes, or else we consider the pupil of one eye as having breadth, and receiving a parcel of rays from each radiating point. And, according to the various inclinations of the rays from one point on the various parts of the pupil, we make our estimate of the distance of the object. And therefore (as is said before), by one single eye we can only judge of the distance of such objects to whose distance the breadth of the pupil has a sensible proportion. . . . For, it is observed before (prop. 29, sec. 2, see also *Gregorii Opt. Promot.* prop. 29) that for viewing objects remote and nigh, there are requisite various conformations of the eye—the rays from nigh objects that fall on the eye diverging more than those from more remote objects.' (*Treatise of Dioptrics*, Part I. prop. 31.)

All this helps to shew the state of science regarding vision about the time Berkeley's *Essay* appeared, especially among those with whose works he was familiar [1]. I shall next refer to illustrations of the change which the *Essay* produced.

The *New Theory* has occasioned some interesting criti-

[1] A work resembling Berkeley's in its title, but in little else, appeared more than twenty years before the *Essay*—the *Nova Visionis Theoria* of Dr. Briggs, published in 1685.

cism since its appearance in 1709. At first it drew little attention. For twenty years after its publication the allusions to it were few. The account of Cheselden's experiment upon one born blind, published in 1728, in the *Philosophical Transactions*, which seemed to bring the Theory to the test of scientific experiment, recalled attention to Berkeley's reasonings. The state of religious thought about the same time confirmed the tendency to discuss a doctrine which represented human vision as interpretation of a natural yet divine language, thus suggesting Omnipresent Mind.

Occasional discussions of the *New Theory* may be found in the *Gentleman's Magazine*, from 1732 till Berkeley's death in 1753. Some criticisms may also be found in Smith's *Optics*, published in 1738.

Essential parts of Berkeley's analysis are explained by Voltaire, in his *Élémens de la Philosophie de Newton*. The following from that work is here given on its own account, and also as a prominent recognition of the new doctrine in France, within thirty years from its first promulgation :—

'Il faut absolument conclure de tout ceci, que les distances, les grandeurs, les situations, ne sont pas, à proprement parler, des choses visibles, c'est-à-dire, ne sont pas les objets propres et immédiats de la vue. L'objet propre et immédiat de la vue n'est autre chose que la lumière colorée : tout le reste, nous ne le sentons qu'à la longue et par expérience. Nous apprenons à voir précisément comme nous apprenons à parler et à lire. La différence est, que l'art de voir est plus facile, et que la nature est également à tous notre maître.

'Les jugements soudains, presque uniformes, que toutes nos âmes, à un certain âge, portent des distances, des grandeurs, des situations, nous font penser qu'il n'y a qu'à ouvrir les yeux pour voir la manière dont nous voyons. On se trompe; il y faut le secours des autres sens. Si les hommes n'avaient que le sens de la vue, ils n'auraient

aucun moyen pour connaître l'étendue en longueur, largeur et profondeur; et un pur esprit ne la connaîtrait pas peut-être, à moins que Dieu ne la lui révélât. Il est très difficile de séparer dans notre entendement l'extension d'un objet d'avec les couleurs de cet objet. Nous ne voyons jamais rien que d'étendu, et de là nous sommes tous portés à croire que nous voyons en effet l'étendue.' (*Élémens de la Philos. de Newton*, Seconde Partie, ch. 7.)

Condillac, in his *Essais sur l'Origine des Connaissances Humaines* (Part I. sect. 6), published in 1746, combats Berkeley's *New Theory*, and maintains that an extension exterior to the eye is immediately discernible by sight; the eye being naturally capable of judging at once of figures, magnitudes, situations, and distances. His reasonings in support of this 'prejudice,' as he afterwards allowed it to be, may be found in the section entitled 'De quelques jugemens qu'on a attribués à l'âme sans fondement, ou solution d'un problème de métaphysique.' Here Locke, Molyneux, Berkeley, and Voltaire are criticised, and Cheselden's experiment is referred to. Condillac's subsequent recantation is contained in his *Traité des Sensations*, published in 1754, and in his *L'Art de Penser*. In the *Traité des Sensations* (Troisième Partie, ch. 3, 4, 5, 6, 7, 8, &c.) the whole question is discussed at length, and Condillac vindicates what he allows must appear a marvellous paradox to the uninitiated—that we only gradually learn to see, hear, smell, taste, and touch. He argues in particular that the eye cannot originally perceive an extension that is beyond itself, and that perception of trinal space is due to what we experience in touch.

Voltaire and Condillac gave currency to the *New Theory* in France, and it soon became a commonplace with D'Alembert, Diderot, Buffon, and other French philosophers. In Germany we have allusions to it in the Berlin Memoirs and elsewhere; but, although known by name, if not in its distinctive principle and latent idealism, it has not obtained

the consideration which its author's developed theory of the material as well as the visible world has received. The Kantian *a priori* criticism of our cognition of Space, and of our mathematical notions, subsequently indisposed the German mind to the *a posteriori* reasoning of Berkeley's *Essay*.

Its influence is apparent in British philosophy. The following passages in Hartley's *Observations on Man*, published in 1749, illustrate the extent to which some of the distinctive parts of the new doctrine were at that time received by an eminent English psychologist:—

'Distance is judged of by the quantity of motion, and figure by the relative quantity of distance. . . . And, as the sense of sight is much more extensive and expedite than feeling, we judge of tangible qualities chiefly by sight, which therefore may be considered, agreeably to Bishop Berkeley's remark, as a philosophical language for the ideas of feeling; being, for the most part, an adequate representative of them, and a language common to all mankind, and in which they all agree very nearly, after a moderate degree of experience.

'However, if the informations from touch and sight disagree at any time, we are always to depend upon touch, as that which, according to the usual ways of speaking upon these subjects, is the true representation of the essential properties, i. e. as the earnest and presage of what other tangible impressions the body under consideration will make upon our feeling in other circumstances; also what changes it will produce in other bodies; of which again we are to determine by our feeling, if the visual language should not happen to correspond to it exactly. And it is from this difference that we call the touch the reality, light the representative—also that a person born blind may foretell with certainty, from his present tangible impressions, what others would follow upon varying the circumstances; whereas, if we could suppose a person to be born without

feeling, and to arrive at man's estate, he could not, from his present visible impressions, judge what others would follow upon varying the circumstances. Thus the picture of a knife, drawn so well as to deceive his eye, would not, when applied to another body, produce the same change of visible impressions as a real knife does, when it separates the parts of the body through which it passes. But the touch is not liable to these deceptions. As it is therefore the fundamental source of information in respect of the essential properties of matter, it may be considered as our first and principal key to the knowledge of the external world.' (Prop. 30.)

In other parts of Hartley's book (e. g. Prop. 58) the relation of our visual judgments of magnitude, figure, motion, distance, and position to the laws of association is explained, and the associating circumstances by which these judgments are formed are enumerated in detail.

Dr. Porterfield of Edinburgh, in his *Treatise on the Eye, or the Manner and Phenomena of Vision* (Edinburgh, 1759), is an exception to the consent which the doctrine had then widely secured. He maintains, in opposition to Berkeley, that 'the judgments we form of the situation and distance of visible objects, depend not on custom and experience, but on original instinct, to which mind is subject in our embodied state[1].'

Berkeley's Theory of Vision, in so far as it resolves our visual perceptions of distance into interpretation of arbitrary signs, received the qualified approbation of Reid, in his *Inquiry into the Human Mind on the Principles of Common Sense* (1764). He criticises it in the *Inquiry*, where the doctrine of visual signs, of which Berkeley's whole philosophy is a development, is accepted, and to some extent applied. With Reid it is divorced, however, from the Berkeleian conception of the material world,

[1] See *Treatise on the Eye*, vol. II. pp. 299, &c.

although the Theory of Vision was the seminal principle of Berkeley's Theory of Matter [1].

This Theory of Matter was imperfectly conceived and then rejected by Reid and his followers, while the New Theory of Vision obtained the general consent of the Scottish metaphysicians. Adam Smith refers to it in his *Essays* (published in 1795) as 'one of the finest examples of philosophical analysis that is to be found either in our own or in any other language.' Dugald Stewart characterises it in his *Elements* as 'one of the most beautiful, and at the same time one of the most important theories of modern philosophy.' 'The solid additions,' he afterwards remarks in his *Dissertation*, 'made by Berkeley to the stock of human knowledge, were important and brilliant. Among these the first place is unquestionably due to his *New Theory of Vision*, a work abounding with ideas so different from those commonly received, and at the same time so profound and refined, that it was regarded by all but a few accustomed to deep metaphysical reflection, rather in the light of a philosophical romance than of a sober inquiry after truth. Such, however, has since been the progress and diffusion of this sort of knowledge, that the leading and most abstracted doctrines contained in it form now an essential part of every elementary treatise on optics, and are adopted by the most superficial smatterers in science as fundamental articles of their faith.' The *New Theory* is accepted by Thomas Brown, who proposes (*Lectures*, 29) to extend the scope of its reasonings. With regard to perceptions of sight, Young, in his *Lectures on Intellectual Philosophy* (p. 102), says that 'it has been universally admitted, at least since the days of Berkeley, that many of those which appear to us at present to be instantaneous and primitive, can yet be shewn to be

[1] See Reid's *Inquiry*, ch. v. §§ 3, 5, 6, 7; ch. vi. § 24, and *Essays on the Intellectual Powers*, II. ch. 10 and 19.

acquired; that most of the adult perceptions of sight are founded on the previous information of touch; that colour can give us no conception originally of those qualities of bodies which produce it in us; and that primary vision gives us no notion of distance, and, as I believe, no notion of magnitude.' Sir James Mackintosh, in his *Dissertation*, characterises the *New Theory of Vision* as 'a great discovery in Mental Philosophy.' 'Nothing in the compass of inductive reasoning,' remarks Sir William Hamilton (Reid's *Works*, p. 182, note), 'appears more satisfactory than Berkeley's demonstration of the necessity and manner of our learning, by a slow process of observation and comparison alone, the connexion between the perceptions of vision and touch, and, in general, all that relates to the distance and magnitude of external things[1].'

The New Theory of Vision has in short been generally accepted, so far as it was understood, alike by the followers of Hartley and by the associates and successors of Reid. Among British psychologists, it has recommended itself to rationalists and sensationalists, to the advocates of innate principles, and to those who would explain by accidental association what their opponents attribute to reason originally latent in man. But this wide conscious assent is I think chiefly confined to the proposition that distance is invisible, and hardly reaches the deeper implicates of the theory, on its extension to all the senses, leading to a perception of the final unity

[1] While Sir W. Hamilton (*Lectures on Metaphysics*, lxxviii) acknowledges the scientific validity of Berkeley's conclusions, as to the way we judge of distances, he complains, in the same lecture, that 'the whole question is thrown into doubt by the analogy of the lower animals,' i.e. by their probable *visual instinct* of distances; and elsewhere (Reid's *Works*, p. 137, note) he seems to hesitate about Locke's Solution of Molyneux's Problem, at least in its application to Cheselden's case. Cf. Leibniz, *Nouveaux Essais*, Liv. II. ch. 9, in connexion with this last.

of the natural and the supernatural, and the ultimate spirituality of the universe[1].

[1] An almost solitary exception in Britain to this unusual uniformity on a subtle question in psychology is found in Samuel Bailey's *Review of Berkeley's Theory of Vision, designed to show the unsoundness of that celebrated Speculation*, which appeared in 1842. It was the subject of two interesting rejoinders—a well-weighed criticism, in the *Westminster Review*, by J. S. Mill, since republished in his *Discussions*; and an ingenious Essay by Professor Ferrier, in *Blackwood's Magazine*, republished in his *Philosophical Remains*. The controversy ended on that occasion with Bailey's *Letter to a Philosopher in reply to some recent attempts to vindicate Berkeley's Theory of Vision, and in further elucidation of its unsoundness*, and a reply to it by each of his critics. It was revived in 1864 by Mr. Abbott of Trinity College, Dublin, whose essay on *Sight and Touch* is 'an attempt to disprove the received (or Berkeleian) Theory of Vision.'

TO THE

RT. HON. SIR JOHN PERCIVALE, BART.[1],

ONE OF HER MAJESTY'S MOST HONOURABLE PRIVY COUNCIL

IN THE KINGDOM OF IRELAND.

SIR,

I COULD not, without doing violence to myself, forbear upon this occasion to give some public testimony of the great and well-grounded esteem I have conceived for you, ever since I had the honour and happiness of your acquaintance. The outward advantages of fortune, and the early honours with which you are adorned, together with the reputation you are known to have amongst the best and most considerable men, may well imprint veneration and esteem on the minds of those who behold you from a distance. But these are not the chief motives that inspire me with the respect I bear you. A nearer approach has given me the view of something in your person infinitely beyond the external ornaments of honour and estate. I mean, an intrinsic stock of virtue and good sense, a true concern for religion, and disinterested love of your country. Add to these an uncommon proficiency in the best and most useful parts of knowledge; together with (what in my mind is

[1] Afterwards (in 1733) Earl of Egmont. Born about 1683, he succeeded to the baronetcy in 1691, and, after sitting for a few years in the Irish House of Commons, was in 1715 created Baron Percival, in the Irish peerage. In 1732 he obtained a charter to colonise the province of Georgia in North America. His name appears in the list of subscribers to Berkeley's Bermuda Scheme in 1726. He died in 1748. He corresponded frequently with Berkeley from 1709 onwards.

a perfection of the first rank) a surpassing goodness of nature. All which I have collected, not from the uncertain reports of fame, but from my own experience. Within these few months that I have the honour to be known unto you, the many delightful hours I have passed in your agreeable and improving conversation have afforded me the opportunity of discovering in you many excellent qualities, which at once fill me with admiration and esteem. That one at those years, and in those circumstances of wealth and greatness, should continue proof against the charms of luxury and those criminal pleasures so fashionable and predominant in the age we live in; that he should preserve a sweet and modest behaviour, free from that insolent and assuming air so familiar to those who are placed above the ordinary rank of men; that he should manage a great fortune with that prudence and inspection, and at the same time expend it with that generosity and nobleness of mind, as to shew himself equally remote from a sordid parsimony and a lavish inconsiderate profusion of the good things he is intrusted with—this, surely, were admirable and praiseworthy. But, that he should, moreover, by an impartial exercise of his reason, and constant perusal of the sacred Scriptures, endeavour to attain a right notion of the principles of natural and revealed religion; that he should with the concern of a true patriot have the interest of the public at heart, and omit no means of informing himself what may be prejudicial or advantageous to his country, in order to prevent the one and promote the other; in fine, that, by a constant application to the most severe and useful studies, by a strict observation of the rules of honour and virtue, by frequent and serious reflections on the mistaken measures of the world, and the true end and happiness of mankind, he should in all respects qualify himself bravely to run the race that is set before him, to deserve the character of great and good in this life, and be ever happy hereafter—this were amazing and almost incredible. Yet all this, and more than this, SIR, might I justly say of you, did either your modesty permit, or your character stand in need of it. I know it might deservedly be thought a vanity in me to imagine that anything coming from so obscure a hand as mine could add a lustre to your reputation. But, I am withal sensible how

far I advance the interest of my own, by laying hold on this opportunity to make it known that I am admitted into some degree of intimacy with a person of your exquisite judgment. And, with that view, I have ventured to make you an address of this nature, which the goodness I have ever experienced in you inclines me to hope will meet with a favourable reception at your hands. Though I must own I have your pardon to ask, for touching on what may possibly be offensive to a virtue you are possessed of in a very distinguishing degree. Excuse me, SIR, if it was out of my power to mention the name of SIR JOHN PERCIVALE without paying some tribute to that extraordinary and surprising merit whereof I have so clear and affecting an idea, and which, I am sure, cannot be exposed in too full a light for the imitation of others.

Of late I have been agreeably employed in considering the most noble, pleasant, and comprehensive of all the senses[1]. The fruit of that (labour shall I call it or) diversion is what I now present you with, in hopes it may give some entertainment to one who, in the midst of business and vulgar enjoyments, preserves a relish for the more refined pleasures of thought and reflexion. My thoughts concerning Vision have led me into some notions so far out of the common road[2] that it had been improper to address them to one of a narrow and contracted genius. But, you, SIR, being master of a large and free understanding, raised above the power of those prejudices that enslave the far greater part of mankind, may deservedly be thought a proper patron for an attempt of this kind. Add to this, that you are no less disposed to forgive than qualified to discern whatever faults may occur in it. Nor do I think

[1] Similar terms are applied to the sense of seeing by writers with whom Berkeley was familiar. Thus Locke (*Essay*, II. ix. 9) refers to sight as 'the most comprehensive of all our senses.' Descartes opens his *Dioptrique* by designating it as 'le plus universal et le plus noble de nos sens;' and he alludes to it elsewhere (*Princip.* IV. 195) as 'le plus subtil de tous les sens.' Malebranche begins his analysis of sight (*Recherche*, I. 6) by describing it as 'le premier, le plus noble, et le plus étendu de tous les sens.' The high place assigned to this sense by Aristotle has been already alluded to. Its office, as the chief organ through which a conception of the material universe as placed in ambient space is given to us, is recognised by a multitude of psychologists and metaphysicians.

[2] On Berkeley's originality in his Theory of Vision see the Editor's Preface.

you defective in any one point necessary to form an exact judgment on the most abstract and difficult things, so much as in a just confidence of your own abilities. And, in this one instance, give me leave to say, you shew a manifest weakness of judgment. With relation to the following *Essay*, I shall only add that I beg your pardon for laying a trifle of that nature in your way, at a time when you are engaged in the important affairs of the nation, and desire you to think that I am, with all sincerity and respect,

SIR,

Your most faithful and most humble servant,

GEORGE BERKELEY.

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AN ESSAY

TOWARDS

A NEW THEORY OF VISION

1. My design is to shew the manner wherein we perceive by Sight the Distance, Magnitude, and Situation of objects: also to consider the difference there is betwixt the ideas of Sight and Touch, and whether there be any idea common to both senses[1].

2. It is, I think, agreed by all that Distance, of itself and immediately, cannot be seen[2]. For, distance[3] being a line directed endwise to the eye, it projects only one point in the fund of the eye, which point remains invariably the same, whether the distance be longer or shorter[4].

[1] In the first edition alone this sentence followed:—'In treating of all which, it seems to me, the writers of Optics have proceeded on wrong principles.'

[2] Sect. 2–51 explain the way in which we learn in seeing to judge of Distance or Outness, and of objects as existing remote from our organism, viz. by their association with what we see, and with certain muscular and other sensations in the eye which accompany vision. Sect. 2 assumes, as granted, the invisibility of distance in the line of sight. Cf. sect. 11 and 88—*First Dialogue between Hylas and Philonous* — *Alciphron*, IV. 8 — *Theory of Vision Vindicated and Explained*, sect. 62–69.

[3] i. e. outness, or distance outward from the point of vision—distance in the line of sight—the third dimension of space. Visible distance is visible space or interval between two points (see sect. 112). We can be sensibly percipient of it only when *both* points are seen.

[4] This section is adduced by some of Berkeley's critics as if it were the evidence discovered by him for his *Theory*, instead of being, as it is, a passing reference to the scientific ground of the already

3. I find it also acknowledged that the estimate we make of the distance of objects considerably remote is rather an act of judgment grounded on experience than of sense. For example, when I perceive a great number of intermediate objects, such as houses, fields, rivers, and the like, which I have experienced to take up a considerable space, I thence form a judgment or conclusion, that the object I see beyond them is at a great distance. Again, when an object appears faint and small which at a near distance I have experienced to make a vigorous and large appearance, I instantly conclude it to be far off[1]. And this, it is evident, is the result of experience; without which, from the faintness and littleness, I should not have inferred anything concerning the distance of objects.

4. But, when an object is placed at so near a distance as that the interval between the eyes bears any sensible proportion to it[2], the opinion of speculative men is, that the two optic axes (the fancy that we see only with one eye at once being exploded), concurring at the object, do there make an angle, by means of which, according as it is greater or lesser, the object is perceived to be nearer or farther off[3].

5. Betwixt which and the foregoing manner of estimating distance there is this remarkable difference:—that, whereas there was no apparent *necessary* connexion between small distance and a large and strong appearance, or between great distance and a little and faint appearance, there

acknowledged invisibility of outness, or distance in the line of sight. See, for example, Bailey's *Review of Berkeley's Theory of Vision*, pp. 38–43, also his *Theory of Reasoning*, p. 179 and pp. 200–7 —Mill's *Discussions*, vol. II. p. 95— Abbott's *Sight and Touch*, p. 10, where this sentence is presented as 'the sole positive argument advanced by Berkeley.' The invisibility of outness is not Berkeley's discovery, but the way we learn to interpret its visual signs, and what these are.

[1] i. e. aerial and linear perspective are acknowledged signs of remote distances. But the question, in this and the thirty-six following sections, concerns the visibility of *near* distances only—a few yards in front of us. It was 'agreed by all' that beyond this limit distances are suggested by our experience of their signs.

[2] Cf. this and the four following sections with the quotations in the Editor's Preface, from Molyneux's *Treatise of Dioptrics*.

[3] In the author's last edition we have this annotation: 'See what Des Cartes and others have written upon the subject.'

appears a very *necessary* connexion between an obtuse angle and near distance, and an acute angle and farther distance. It does not in the least depend upon experience, but may be evidently known by any one before he had experienced it, that the nearer the concurrence of the optic axes the greater the angle, and the remoter their concurrence is, the lesser will be the angle comprehended by them.

6. There is another way, mentioned by optic writers, whereby they will have us judge of those distances in respect of which the breadth of the pupil hath any sensible bigness. And that is the greater or lesser divergency of the rays which, issuing from the visible point, do fall on the pupil—that point being judged nearest which is seen by most diverging rays, and that remoter which is seen by less diverging rays, and so on; the apparent distance still increasing, as the divergency of the rays decreases, till at length it becomes infinite, when the rays that fall on the pupil are to sense parallel. And after this manner it is said we perceive distance when we look only with one eye.

7. In this case also it is plain we are not beholden to experience: it being a certain necessary truth that, the nearer the direct rays falling on the eye approach to a parallelism, the farther off is the point of their intersection, or the visible point from whence they flow.

8. [1] Now, though the accounts here given of perceiving *near* distance by sight are received for true, and accordingly made use of in determining the apparent places of objects, they do nevertheless seem to me very unsatisfactory, and that for these following reasons:—

9. [*First*[2],] It is evident that, when the mind perceives any idea not immediately and of itself, it must be by the means of some other idea. Thus, for instance, the passions which are in the mind of another are of themselves to me invisible. I may nevertheless perceive them

[1] In the first edition this section opens thus: 'I have here set down the common current accounts that are given of our perceiving near distances by sight, which, though they are unquestionably received for true by mathematicians, and accordingly made use of by them in determining the apparent places of objects, do nevertheless,' &c.

[2] Omitted in the author's last edition.

by sight; though not immediately, yet by means of the colours they produce in the countenance. We often see shame or fear in the looks of a man, by perceiving the changes of his countenance to red or pale.

10. Moreover, it is evident that no idea which is not itself perceived can be to me the means of perceiving any other idea. If I do not perceive the redness or paleness of a man's face themselves, it is impossible I should perceive by them the passions which are in his mind.

11. Now, from sect. ii., it is plain that distance is in its own nature imperceptible, and yet it is perceived by sight [1]. It remains, therefore, that it be brought into view by means of some other idea, that is itself immediately perceived in the act of vision.

12. But those lines and angles, by means whereof some men [2] pretend to explain the perception [3] of distance, are themselves not at all perceived; nor are they in truth ever thought of by those unskilful in optics. I appeal to any one's experience, whether, upon sight of an object, he computes its distance by the bigness of the angle made by the meeting of the two optic axes? or whether he ever thinks of the greater or lesser divergency of the rays which arrive from any point to his pupil? nay, whether it be not perfectly impossible for him to perceive by sense the various angles wherewith the rays, according to their greater or lesser divergence, do fall on the eye? Every one is himself the best judge of what he perceives, and what not. In vain shall any man [4] tell me, that I perceive certain lines and angles, which introduce into my mind the various ideas of distance, so long as I myself am conscious of no such thing.

13. Since therefore those angles and lines are not them-

[1] i. e. although immediately invisible, it is mediately seen. Mark, here and elsewhere, the ambiguity of the term *perception*, which now signifies the act of being conscious of sensuous phenomena, and again the act of inferring phenomena of which we are at the time insentient; while it is also applied to the object perceived instead of to the percipient act; and sometimes to imagination, and the higher acts of intelligence.

[2] 'Some men'—'mathematicians,' in first edition.

[3] i. e. the *mediate* perception.

[4] 'any man'—'all the mathematicians in the world,' in first edition.

selves perceived by sight, it follows, from sect. x., that the mind does not by them judge of the distance of objects.

14. [*Secondly* [1],] The truth of this assertion will be yet farther evident to any one that considers those lines and angles have no real existence in nature, being only an hypothesis framed by the mathematicians, and by them introduced into optics, that they might treat of that science in a geometrical way.

15. The [*third* and [2]] last reason I shall give for rejecting that doctrine is, that though we should grant the real existence of those optic angles, &c., and that it was possible for the mind to perceive them, yet these principles would not be found sufficient to explain the phenomena of distance, as shall be shewn hereafter.

16. Now it being already shewn [3] that distance is *suggested* [4] to the mind, by the mediation of some other idea which is itself perceived in the act of seeing, it remains that we inquire, what ideas or sensations there be that attend vision, unto which we may suppose the ideas of distance are connected, and by which they are introduced into the mind.

And, *first*, it is certain by experience, that when we look at a near object with both eyes, according as it approaches or recedes from us, we alter the disposition of our eyes, by lessening or widening the interval between the pupils. This disposition or turn of the eyes is attended with a sensation [5], which seems to me to be that which in this case brings the idea of greater or lesser distance into the mind.

[1] Omitted in the author's last edition.

[2] Omitted in the author's last edition.

[3] Sect. 3, 9.

[4] Observe the first introduction by Berkeley of the term *suggestion*, used by him to express a leading factor in his account of the visible world, and again in his more comprehensive account of our knowledge of the material universe in the *Principles*. It had been employed occasionally, among others, by Hobbes and Locke. There are three ways in which the objects we have an immediate perception of in sight may be supposed to conduct us to what we do not immediately perceive: (1) Instinct, or what Reid calls '*original* suggestion' (*Inquiry*, ch. VI. sect. 20–24); (2) Custom; (3) Reasoning from accepted premisses. Berkeley's 'suggestion' corresponds to the second. (Cf. *Theory of Vision Vindicated*, sect. 42.)

[5] In the *Theory of Vision Vindi-*

17. Not that there is any natural or necessary[1] connexion between the sensation we perceive by the turn of the eyes and greater or lesser distance. But—because the mind has, by constant experience, found the different sensations corresponding to the different dispositions of the eyes to be attended each with a different degree of distance in the object—there has grown an habitual or customary connexion between those two sorts of ideas: so that the mind no sooner perceives the sensation arising from the different turn it gives the eyes, in order to bring the pupils nearer or farther asunder, but it withal perceives the different idea of distance which was wont to be connected with that sensation. Just as, upon hearing a certain sound, the idea is immediately suggested to the understanding which custom had united with it[2].

18. Nor do I see how I can easily be mistaken in this matter. I know evidently that distance is not perceived of itself[3]; that, by consequence, it must be perceived by means of some other idea, which is immediately perceived, and varies with the different degrees of distance. I know also that the sensation arising from the turn of the eyes is of itself immediately perceived; and various degrees thereof are connected with different distances, which never fail to accompany them into my mind, when I view an object distinctly with both eyes whose distance is so small that in respect of it the interval between the eyes has any considerable magnitude.

19. I know it is a received opinion that, by altering the disposition of the eyes, the mind perceives whether the angle of the optic axes, or the lateral angles comprehended between the interval of the eyes or the optic axes, are made greater or lesser; and that, accordingly, by a kind of natural geometry, it judges the point of their intersection to be nearer or farther off. But that this is not true I am

cated, sect. 66, it is added that this 'sensation' belongs properly to the sense of touch. Cf. also sect. 145 of this *Essay*.

[1] Here 'natural' = 'necessary': elsewhere = divinely arbitrary connexion.

[2] That our *mediate* vision of outness and of objects as thus external, is due to media which have a contingent or arbitrary, instead of a necessary, connexion with the distances which they enable us to see, or of which they are the signs, is a cardinal part of his argument.

[3] Sect. 2.

convinced by my own experience; since I am not conscious that I make any such use of the perception I have by the turn of my eyes. And for me to make those judgments, and draw those conclusions from it, without knowing that I do so, seems altogether incomprehensible[1].

20. From all which it follows, that the judgment we make of the distance of an object viewed with both eyes is entirely the result of experience. If we had not constantly found certain sensations, arising from the various disposition of the eyes, attended with certain degrees of distance, we should never make those sudden judgments from them concerning the distance of objects; no more than we would pretend to judge of a man's thoughts by his pronouncing words we had never heard before.

21. *Secondly,* an object placed at a certain distance from the eye, to which the breadth of the pupil bears a considerable proportion, being made to approach, is seen more confusedly[2]. And the nearer it is brought the more confused appearance it makes. And this being found constantly to be so, there arises in the mind an habitual connexion between the several degrees of confusion and distance; the greater confusion still implying the lesser distance, and the lesser confusion the greater distance of the object.

22. This confused appearance of the object doth therefore seem to be the medium whereby the mind judges of distance, in those cases wherein the most approved writers of optics will have it judge by the different divergency with which the rays flowing from the radiating point fall on the pupil[3]. No man, I believe, will pretend to see or feel those imaginary angles that the rays are supposed to form, according to their various inclinations on his eye. But he cannot choose seeing whether the object appear more or less confused. It is therefore a manifest consequence from what has been demonstrated that, instead of the greater or lesser divergency of the rays, the mind makes use of the

[1] Here, as generally in the *Essay*, the appeal is to our inward experience, not to phenomena observed by our senses in the organism.

[2] See sect. 35 for the difference between confused and faint vision. Cf. sect. 32–38 with this section. Also *Theory of Vision Vindicated*, sect. 68.

[3] See sect. 6.

greater or lesser confusedness of the appearance, thereby to determine the apparent place of an object.

23. Nor doth it avail to say there is not any necessary connexion between confused vision and distance great or small. For I ask any man what necessary connexion he sees between the redness of a blush and shame? And yet no sooner shall he behold that colour to arise in the face of another but it brings into his mind the idea of that passion which hath been observed to accompany it.

24. What seems to have misled the writers of optics in this matter is, that they imagine men judge of distance as they do of a conclusion in mathematics; betwixt which and the premises it is indeed absolutely requisite there be an apparent necessary connexion. But it is far otherwise in the sudden judgments men make of distance. We are not to think that brutes and children, or even grown reasonable men, whenever they perceive an object to approach or depart from them, do it by virtue of geometry and demonstration.

25. That one idea may suggest another to the mind, it will suffice that they have been observed to go together, without any demonstration of the *necessity* of their coexistence, or without so much as knowing what it is that makes them so to coexist. Of this there are innumerable instances, of which no one can be ignorant[1].

26. Thus, greater confusion having been constantly attended with nearer distance, no sooner is the former idea perceived but it suggests the latter to our thoughts. And, if it had been the ordinary course of nature that the farther off an object were placed the more confused it should appear, it is certain the very same perception that now makes us think an object approaches would then have made us to imagine it went farther off; that perception, abstracting from custom and experience, being equally fitted to produce the idea of great distance, or small distance, or no distance at all.

27. *Thirdly*, an object being placed at the distance above specified, and brought nearer to the eye, we may nevertheless prevent, at least for some time, the appearance's

[1] These sections presuppose previous contiguity as an associative law of mental phenomena.

growing more confused, by straining the eye[1]. In which case that sensation supplies the place of confused vision, in aiding the mind to judge of the distance of the object; it being esteemed so much the nearer by how much the effort or straining of the eye in order to distinct vision is greater.

28. I have here[2] set down those sensations or ideas[3] that seem to be the constant and general occasions of introducing into the mind the different ideas of near distance. It is true, in most cases, that divers other circumstances contribute to frame our idea of distance, viz. the particular number, size, kind, &c. of the things seen. Concerning which, as well as all other the forementioned occasions which suggest distance, I shall only observe, they have none of them, in their own nature, any relation or connexion with it: nor is it possible they should ever signify the various degrees thereof, otherwise than as by experience they have been found to be connected with them.

29. I shall proceed upon these principles to account for a phenomenon which has hitherto strangely puzzled the writers of optics, and is so far from being accounted for by any of their theories of vision, that it is, by their own confession, plainly repugnant to them; and of consequence, if nothing else could be objected, were alone sufficient to bring their credit in question. The whole difficulty I shall lay before you in the words of the learned Doctor Barrow, with which he concludes his *Optic Lectures*[4]:—

'Hæc sunt, quæ circa partem opticæ præcipue mathematicam dicenda mihi suggessit meditatio. Circa reliquas (quæ φυσικώτεραι sunt, adeoque sæpiuscule pro certis principiis plausibiles conjecturas venditare necessum habent) nihil fere quicquam admodum verisimile succurrit,

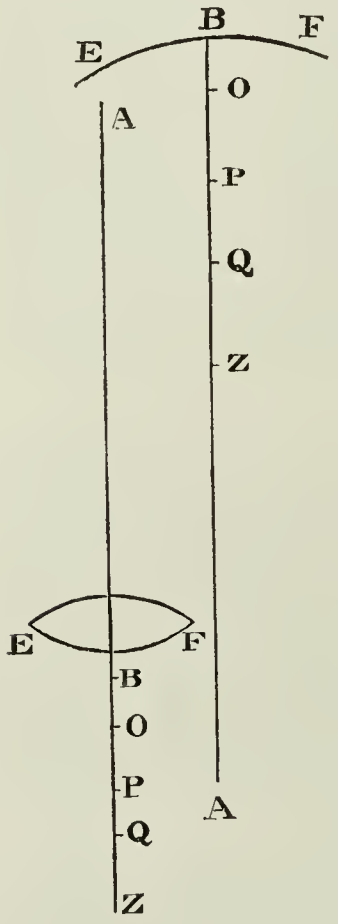
[1] See Reid's *Inquiry*, ch. vi. sect. 22.

[2] Sect. 16-27.—For the signs of remote distances, see sect. 3.

[3] These are muscular sensations felt in the organ, and degrees of confusion in a visible idea. Berkeley's 'arbitrary' signs of distance, near and remote, are either (*a*) invisible states of the visual organ, or (*b*) visible appearances.

[4] In Molyneux's *Treatise of Dioptrics*, Pt. I. prop. 31, sect. 9, Barrow's difficulty is stated. Cf. sect. 40 below.

a pervulgatis (ab iis, inquam, quæ Keplerus, Scheinerus[1], Cartesius, et post illos alii tradiderunt) alienum aut diversum. Atqui tacere malo, quam toties oblatam cramben reponere. Proinde receptui cano ; nec ita tamen ut prorsus discedam, anteaquam improbam quandam difficultatem (pro sinceritate quam et vobis et veritati debeo minime dissimulandam) in medium protulero, quæ doctrinæ nostræ, hactenus inculcatæ, se objicit adversam, ab ea saltem nullam admittit solutionem. Illa, breviter, talis est. Lenti vel speculo cavo *EBF* exponatur punctum visibile *A*, ita distans, ut radii ex *A* manantes ex inflectione versus axem *AB* cogantur. Sitque radiationis limes (seu puncti *A* imago, qualem supra passim statuimus) punctum *Z*. Inter hoc autem et inflectentis verticem *B* uspiam positus concipiatur oculus. Quæri jam potest, ubi loci debeat punctum *A* apparere? Retrorsum ad punctum *Z* videri non fert natura (cum omnis impressio sensum afficiens proveniat a partibus *A*) ac experientia reclamat. Nostris autem e placitis consequi videtur, ipsum ad partes anticas apparens, ab intervallo longissime dissito (quod et maximum sensibile quodvis intervallum quodammodo exsuperet), apparere. Cum enim quo radiis minus divergentibus attingitur objectum, eo (seclusis utique prænotionibus et præjudiciis) longius abesse sentiatur ; et quod parallelos ad oculum radios projicit, remotissime positum æstimetur : exigere ratio videtur, ut quod convergentibus radiis apprehenditur, adhuc magis, si fieri posset, quoad apparentiam elongetur. Quin et circa casum hunc generatim inquiri possit, quidnam omnino sit, quod apparentem puncti *A* locum determinet, faciatque quod constanti ratione nunc propius, nunc remotius appareat? Cui itidem dubio nihil quicquam ex hactenus dictorum analogia responderi posse videtur, nisi



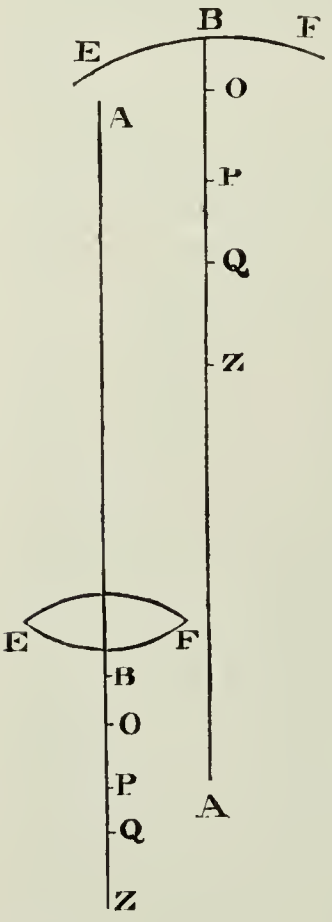
[1] Christopher Scheiner, a German astronomer, and opponent of the Copernican system, born 1575, died 1650.

debere punctum *A* perpetuo longissime semotum videri. Verum experientia secus attestatur, illud pro diversa oculi inter puncta *B*, *Z*, positione varie distans, nunquam fere (si unquam) longinquius ipso *A* libere spectato, subinde vero multo propinquius adparere; quinimo, quo oculum appellentes radii magis convergunt, eo speciem objecti propius accedere. Nempe, si puncto *B* admoveatur oculus, suo (ad lentem) fere nativo in loco conspicitur punctum *A* (vel æque distans, ad speculum); ad *O* reductus oculus ejusce speciem appropinquantem cernit; ad *P* adhuc vicinius ipsum existimat; ac ita sensim, donec alicubi tandem, velut ad *Q*, constituto oculo, objectum summe propinquum apparens in meram confusionem incipiat evanescere. Quæ sane cuncta rationibus atque decretis nostris repugnare videntur, aut cum iis saltem parum amice conspirant. Neque nostram tantum sententiam pulsat hoc experimentum, at ex æquo cæteras quas norim omnes: veterem imprimis ac vulgatam, nostræ præ reliquis affinem, ita convellere videtur, ut ejus vi coactus doctissimus A. Tacquetus isti principio (cui pene soli totam inædificaverat *Catoptricam* suam) ceu infido ac inconstanti renunciarit, adeoque suam ipse doctrinam labefactarit? id tamen, opinor, minime facturus, si rem totam inspexissit penitius, atque difficultatis fundum attigissit. Apud me vero non ita pollet hæc, nec eousque præpollebit ulla difficultas, ut ab iis quæ manifeste rationi consentanea video, discedam; præsertim quum, ut hic accidit, ejusmodi difficultas in singularis cujuspiam casus disparitate fundetur. Nimirum in præsente casu peculiare quiddam, naturæ subtilitati involutum, delitescit, ægre fortassis, nisi perfectius explorato videndi modo, detegendum. Circa quod nil, fateor, hactenus excogitare potui, quod adblandiretur animo meo, nedum plane satisfaceret. Vobis itaque nodum hunc, utinam feliciore conatu, resolvendum committo.'

In English as follows:

'I have here delivered what my thoughts have suggested to me concerning that part of optics which is more properly mathematical. As for the other parts of that science (which, being rather physical, do consequently abound with plausible conjectures instead of certain principles), there has in them scarce anything occurred to my observa-

tion different from what has been already said by Kepler, Scheinerus, Des Cartes, &c. And methinks I had better say nothing at all than repeat that which has been so often said by others. I think it therefore high time to take my leave of this subject. But, before I quit it for good and all, the fair and ingenuous dealing that I owe both to you and to truth obliges me to acquaint you with a certain untoward difficulty, which seems directly opposite to the doctrine I have been hitherto inculcating, at least admits of no solution from it. In short it is this. Before the double convex glass or concave speculum *EBF*, let the point *A* be placed at such a distance that the rays proceeding from *A*, after refraction or reflection, be brought to unite somewhere in the axis *AB*. And suppose the point of union (*i. e.* the image of the point *A*, as hath been already set forth) to be *Z*; between which and *B*, the vertex of the glass or speculum, conceive the eye to be anywhere placed. The question now is, where the point *A* ought to appear. Experience shews that it doth not appear behind at the point *Z*; and it were contrary to nature that it should; since all the impression which affects the sense comes from towards *A*. But, from our tenets it should seem to follow that it would appear before the eye at a vast distance off, so great as should in some sort surpass all sensible distance. For since, if we exclude all anticipations and prejudices, every object appears by so much the farther off by how much the rays it sends to the eye are less diverging; and that object is thought to be most remote from which parallel rays proceed unto the eye; reason would make one think that object should appear at yet a greater distance which is seen by converging rays. Moreover, it may in general be asked concerning this case, what it is that determines the apparent place of the point *A*, and maketh it to appear after a constant manner, sometimes nearer, at



other times farther off? To which doubt I see nothing that can be answered agreeable to the principles we have laid down, except only that the point *A* ought always to appear extremely remote. But, on the contrary, we are assured by experience, that the point *A* appears variously distant, according to the different situations of the eye between the points *B* and *Z*. And that it doth almost never (if at all) seem farther off than it would if it were beheld by the naked eye; but, on the contrary, it doth sometimes appear much nearer. Nay, it is even certain that by how much the rays falling on the eye do more converge, by so much the nearer does the object seem to approach. For, the eye being placed close to the point *B*, the object *A* appears nearly in its own natural place, if the point *B* is taken in the glass, or at the same distance, if in the speculum. The eye being brought back to *O*, the object seems to draw near; and, being come to *P*, it beholds it still nearer: and so on by little and little, till at length the eye being placed somewhere, suppose at *Q*, the object appearing extremely near begins to vanish into mere confusion. All which doth seem repugnant to our principles; at least, not rightly to agree with them. Nor is our tenet alone struck at by this experiment, but likewise all others that ever came to my knowledge are every whit as much endangered by it. The ancient one especially (which is most commonly received, and comes nearest to mine) seems to be so effectually overthrown thereby that the most learned Tacquet has been forced to reject that principle, as false and uncertain, on which alone he had built almost his whole *Catoptrics*, and consequently, by taking away the foundation, hath himself pulled down the superstructure he had raised on it. Which, nevertheless, I do not believe he would have done, had he but considered the whole matter more thoroughly, and examined the difficulty to the bottom. But as for me, neither this nor any other difficulty shall have so great an influence on me, as to make me renounce that which I know to be manifestly agreeable to reason. Especially when, as it here falls out, the difficulty is founded in the peculiar nature of a certain odd and particular case. For, in the present case something peculiar lies hid, which, being involved in the subtilty of nature, will perhaps hardly be discovered till such time

as the manner of vision is more perfectly made known. Concerning which, I must own I have hitherto been able to find out nothing that has the least show of probability, not to mention certainty. I shall therefore leave this knot to be untied by you, wishing you may have better success in it than I have had.'

30. The ancient and received principle, which Dr. Barrow here mentions as the main foundation of Tacquet's[1] *Catoptrics*, is, that every 'visible point seen by reflection from a speculum shall appear placed at the intersection of the reflected ray and the perpendicular of incidence.' Which intersection in the present case happening to be behind the eye, it greatly shakes the authority of that principle whereon the aforementioned author proceeds throughout his whole *Catoptrics*, in determining the apparent place of objects seen by reflection from any kind of speculum.

31. Let us now see how this phenomenon agrees with our tenets[2]. The eye, the nearer it is placed to the point B in the above figures, the more distinct is the appearance of the object: but, as it recedes to O, the appearance grows more confused; and at P it sees the object yet more confused; and so on, till the eye, being brought back to Z, sees the object in the greatest confusion of all. Wherefore, by sect. 21, the object should seem to approach the eye gradually, as it recedes from the point B; that is, at O it should (in consequence of the principle I have laid down in the aforesaid section) seem nearer than it did at B, and at P nearer than at O, and at Q nearer than at P, and so on, till it quite vanishes at Z. Which is the very matter of fact, as any one that pleases may easily satisfy himself by experiment.

32. This case is much the same as if we should suppose an Englishman to meet a foreigner who used the same words with the English, but in a direct contrary

[1] Andrea Tacquet, a mathematician, born at Antwerp in 1611, and referred to by Molyneux as 'the ingenious Jesuit.' He published a number of scientific treatises, most of which appeared after his death, in a collected form, at Antwerp in 1669.

[2] In what follows Berkeley tries to explain by his visual theory seeming contradictions which puzzled the mathematicians.

signification. The Englishman would not fail to make a wrong judgment of the ideas annexed to those sounds, in the mind of him that used them. Just so in the present case, the object speaks (if I may so say) with words that the eye is well acquainted with, that is, confusions of appearance; but, whereas heretofore the greatest confusions were always wont to signify nearer distances, they have in this case a direct contrary signification, being connected with the greater distances. Whence it follows that the eye must unavoidably be mistaken, since it will take the confusions in the sense it has been used to, which is directly opposed to the true.

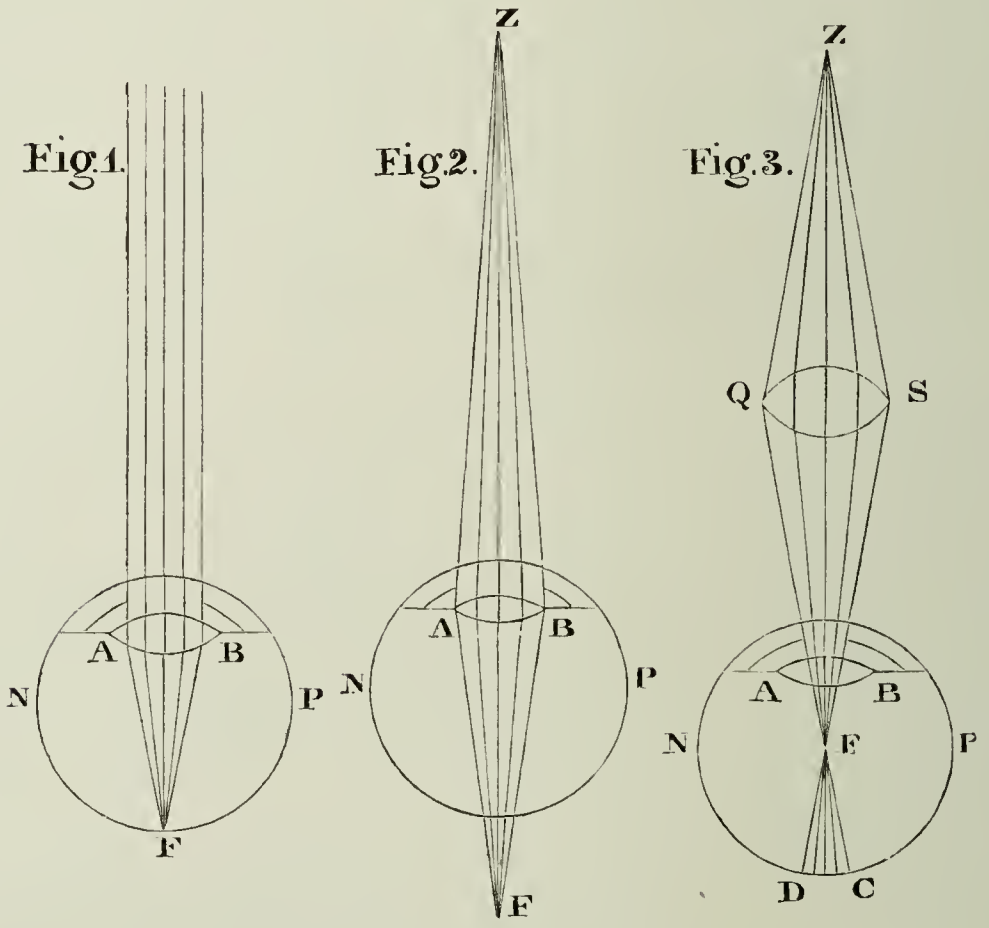
33. This phenomenon, as it entirely subverts the opinion of those who will have us judge of distance by lines and angles, on which supposition it is altogether inexplicable, so it seems to me no small confirmation of the truth of that principle whereby it is explained[1]. But, in order to a more full explication of this point, and to shew how far the hypothesis of the mind's judging by the various divergency of rays may be of use in determining the apparent place of an object, it will be necessary to premise some few things, which are already well known to those who have any skill in Dioptrics.

34. *First*, Any radiating point is then distinctly seen when the rays proceeding from it are, by the refractive power of the crystalline, accurately reunited in the retina or fund of the eye. But if they are reunited either before they arrive at the retina, or after they have passed it, then there is confused vision.

35. *Secondly*, Suppose, in the adjacent figures, *NP* represent an eye duly framed, and retaining its natural figure. In fig. 1 the rays falling nearly parallel on the eye, are, by the crystalline *AB*, refracted, so as their focus, or point of union *F*, falls exactly on the retina. But, if the rays fall sensibly diverging on the eye, as in fig. 2, then their focus falls beyond the retina; or, if the rays are made to converge by the lens *QS*, before they come at the eye, as in fig. 3, their focus *F* will fall before the retina. In which two last cases it is

[1] This is offered as a verification of the theory that near distances are suggested, according to the order of nature, by non-resembling visual signs, contingently connected with real distance.

evident, from the foregoing section, that the appearance of the point *Z* is confused. And, by how much the greater is the convergency or divergency of the rays falling on the pupil, by so much the farther will the point of their reunion be from the retina, either before or behind it, and consequently the point *Z* will appear by so much the more confused. And this, by the bye, may shew us the difference between confused and faint



vision. Confused vision is, when the rays proceeding from each distinct point of the object are not accurately re-collected in one corresponding point on the retina, but take up some space thereon—so that rays from different points become mixed and confused together. This is opposed to a distinct vision, and attends near objects. Faint vision is when, by reason of the distance of the object, or grossness of the interjacent medium, few rays arrive from the object to the eye.

This is opposed to vigorous or clear vision, and attends remote objects. But to return.

36. The eye, or (to speak truly) the mind, perceiving only the confusion itself, without ever considering the cause from which it proceeds, doth constantly annex the same degree of distance to the same degree of confusion. Whether that confusion be occasioned by converging or by diverging rays it matters not. Whence it follows that the eye, viewing the object *Z* through the glass *QS* (which by refraction causeth the rays *ZQ*, *ZS*, &c. to converge), should judge it to be at such a nearness, at which, if it were placed, it would radiate on the eye, with rays diverging to that degree as would produce the same confusion which is now produced by converging rays, *i.e.* would cover a portion of the retina equal to *DC*. (Vid. fig. 3, *sup.*) But then this must be understood (to use Dr. Barrow's phrase) 'seclusis prænotionibus et præjudiciis,' in case we abstract from all other circumstances of vision, such as the figure, size, faintness, &c. of the visible objects—all which do ordinarily concur to form our idea of distance, the mind having, by frequent experience, observed their several sorts or degrees to be connected with various distances.

37. It plainly follows from what has been said, that a person perfectly purblind (*i.e.* that could not see an object distinctly but when placed close to his eye) would not make the same wrong judgment that others do in the forementioned case. For, to him, greater confusions constantly suggesting greater distances, he must, as he recedes from the glass, and the object grows more confused, judge it to be at a farther distance; contrary to what they do who have had the perception of the objects growing more confused connected with the idea of approach.

38. Hence also it doth appear, there may be good use of computation, by lines and angles, in optics[1]; not that the mind judges of distance immediately by them, but because it judges by somewhat which is connected with them, and to the determination whereof they may be subservient. Thus, the mind judging of the distance

[1] Cf. sect. 78; also *New Theory of Vision Vindicated*, sect. 31.

of an object by the confusedness of its appearance, and this confusedness being greater or lesser to the naked eye, according as the object is seen by rays more or less diverging, it follows that a man may make use of the divergency of the rays, in computing the apparent distance, though not for its own sake, yet on account of the confusion with which it is connected. But so it is, the confusion itself is entirely neglected by mathematicians, as having no necessary relation with distance, such as the greater or lesser angles of divergency are conceived to have. And these (especially for that they fall under mathematical computation) are alone regarded, in determining the apparent places of objects, as though they were the sole and immediate cause of the judgments the mind makes of distance. Whereas, in truth, they should not at all be regarded in themselves, or any otherwise than as they are supposed to be the cause of confused vision.

39. The not considering of this has been a fundamental and perplexing oversight. For proof whereof, we need go no farther than the case before us. It having been observed that the most diverging rays brought into the mind the idea of nearest distance, and that still as the divergency decreased the distance increased, and it being thought the connexion between the various degrees of divergency and distance was immediate—this naturally leads one to conclude, from an ill-grounded analogy, that converging rays shall make an object appear at an immense distance, and that, as the convergency increases, the distance (if it were possible) should do so likewise. That this was the cause of Dr. Barrow's mistake is evident from his own words which we have quoted. Whereas had the learned Doctor observed that diverging and converging rays, how opposite soever they may seem, do nevertheless agree in producing the same effect, to wit, confusedness of vision, greater degrees whereof are produced indifferently, either as the divergency or convergency of the rays increaseth; and that it is by this effect, which is the same in both, that either the divergency or convergency is perceived by the eye—I say, had he but considered this, it is certain he would have made a quite contrary judgment, and rightly concluded

that those rays which fall on the eye with greater degrees of convergency should make the object from whence they proceed appear by so much the nearer. But it is plain it was impossible for any man to attain to a right notion of this matter so long as he had regard only to lines and angles, and did not apprehend the true nature of vision, and how far it was of mathematical consideration.

40. Before we dismiss this subject, it is fit we take notice of a query relating thereto, proposed by the ingenious Mr. Molyneux, in his *Treatise of Dioptrics* (par. i. prop. 31. sect. 9), where, speaking of the difficulty we have been explaining, he has these words: 'And so he (i. e. Dr. Barrow) leaves this difficulty to the solution of others, which I (after so great an example) shall do likewise; but with the resolution of the same admirable author, of not quitting the evident doctrine which we have before laid down, for determining the *locus objecti*, on account of being pressed by one difficulty, which seems inexplicable till a more intimate knowledge of the visive faculty be obtained by mortals. In the meantime I propose it to the consideration of the ingenious, whether the *locus apparens* of an object placed as in this ninth section be not as much before the eye as the distinct base is behind the eye?' To which query we may venture to answer in the negative. For, in the present case, the rule for determining the distance of the distinct base, or respective focus from the glass is this: *As the difference between the distance of the object and focus is to the focus or focal length, so the distance of the object from the glass is to the distance of the respective focus or distinct base from the glass.* (Molyneux, *Dioptr.*, par. i. prop. 5.) Let us now suppose the object to be placed at the distance of the focal length, and one-half of the focal length from the glass, and the eye close to the glass. Hence it will follow, by the rule, that the distance of the distinct base behind the eye is double the true distance of the object before the eye. If, therefore, Mr. Molyneux's conjecture held good, it would follow that the eye should see the object twice as far off as it really is; and in other cases at three or four times its due distance, or more. But this manifestly contradicts experience, the object never appearing, at farthest, beyond its due distance. Whatever, therefore, is built on this suppo-

sition (vid. corol. i. prop. 57. ibid.) comes to the ground along with it.

41. From what hath been premised, it is a manifest consequence, that a man born blind, being made to see, would at first have no idea of distance by sight: the sun and stars, the remotest objects as well as the nearer, would all seem to be in his eye, or rather in his mind. The objects intromitted by sight would seem to him (as in truth they are) no other than a new set of thoughts or sensations, each whereof is as near to him as the perceptions of pain or pleasure, or the most inward passions of his soul. For, our judging objects perceived by sight to be at any distance, or without the mind, is (vid. sect. xxviii.) entirely the effect of experience; which one in those circumstances could not yet have attained to[1].

42. It is indeed otherwise upon the common supposition —that men judge of distance by the angle of the optic axes, just as one in the dark, or a blind man by the angle comprehended by two sticks, one whereof he held in each hand[2]. For, if this were true, it would follow that one blind from his birth, being made to see, should stand in need of no new experience, in order to perceive distance by sight. But that this is false has, I think, been sufficiently demonstrated.

43. And perhaps, upon a strict inquiry, we shall not find that even those who from their birth have grown up in a continued habit of seeing are irrecoverably prejudiced on the other side, to wit, in thinking what they see to be at a distance from them. For, at this time it seems agreed on all hands, by those who have had any thoughts of that matter, that colours, which are the proper and immediate object of sight, are not without the mind.—But then, it will be said, by sight we have also the ideas of extension, and figure, and motion; all which may well be thought without and at some distance from the mind, though colour should

[1] Berkeley here passes from his proof of visual 'suggestion' of all outward distances—i. e. intervals between extremes in the line of sight—by means of arbitrary signs, and considers the nature of visible externality. See note in Hamilton's *Reid*, p. 177, on the distinction between perception of the external world and perception of distance through the eye.

[2] See Descartes, *Dioptrique*, VI —Malebranche, *Recherche*, Liv. I. ch. 9, 3—Reid's *Inquiry*, VI. 11.

not. In answer to this, I appeal to any man's experience, whether the visible extension of any object do not appear as near to him as the colour of that object; nay, whether they do not both seem to be in the very same place. Is not the extension we see coloured, and is it possible for us, so much as in thought, to separate and abstract colour from extension? Now, where the extension is, there surely is the figure, and there the motion too. I speak of those which are perceived by sight[1].

44. But for a fuller explication of this point, and to shew that the immediate objects of sight are not so much as the ideas or resemblances of things placed at a distance, it is requisite that we look nearer into the matter, and carefully observe what is meant in common discourse when one says, that which he sees is at a distance from him. Suppose, for example, that looking at the moon I should say it were fifty or sixty semidiameters of the earth distant from me. Let us see what moon this is spoken of. It is plain it cannot be the visible moon, or anything like the visible moon, or that which I see—which is only a round luminous plain, of about thirty visible points in diameter. For, in case I am carried from the place where I stand directly towards the moon, it is manifest the object varies still as I go on; and, by the time that I am advanced fifty or sixty semidiameters of the earth, I shall be so far from being near a small, round, luminous flat that I shall perceive nothing like it—this object having long since disappeared, and, if I would recover it, it must be by going back to the earth from whence I set out[2]. Again, suppose I perceive by sight the faint and obscure idea of something, which I doubt whether it be a man, or a tree, or a tower, but

[1] Berkeley here begins to found, on the experienced connexion between extension and colour, and between visible and tangible extension, a proof that *outness* is invisible. From Aristotle onwards it has been assumed that colour is the only phenomenon of which we are immediately percipient in seeing. Visible extension, visible figure, and visible motion are accordingly taken to be dependent on the sensation of colour.

[2] In connexion with this and the next illustration, Berkeley seems to argue that we are not only unable to see distance in the line of sight, but also that we do not see a distant object in its *real visible* magnitude. But elsewhere he affirms that only *tangible* magnitude is entitled to be called *real*. Cf. sect. 55, 59 61.

judge it to be at the distance of about a mile. It is plain I cannot mean that what I see is a mile off, or that it is the image or likeness of anything which is a mile off; since that every step I take towards it the appearance alters, and from being obscure, small, and faint, grows clear, large, and vigorous. And when I come to the mile's end, that which I saw first is quite lost, neither do I find anything in the likeness of it [1].

45. In these and the like instances, the truth of the matter, I find, stands thus :—Having of a long time experienced certain ideas perceivable by touch [2]—as distance, tangible figure, and solidity—to have been connected with certain ideas of sight, I do, upon perceiving these ideas of sight, forthwith conclude what tangible ideas are, by the wonted ordinary course of nature, like to follow. Looking at an object, I perceive a certain visible figure and colour, with some degree of faintness and other circumstances, which, from what I have formerly observed, determine me to think that if I advance forward so many paces, miles, &c., I shall be affected with such and such ideas of touch. So that, in truth and strictness of speech, I neither see distance itself, nor anything that I take to be at a distance. I say, neither distance nor things placed at a distance are themselves, or their ideas, truly perceived by sight. This I am persuaded of, as to what concerns myself. And I believe whoever will look narrowly into his own thoughts, and examine what he means by saying he sees this or that thing at a distance, will agree with me, that what he sees

[1] The sceptical objections to the trustworthiness of the senses, proposed by the Eleatics and others, referred to by Descartes in his *Meditations*, and by Malebranche in the First Book of his *Recherche*, may have suggested the illustrations in this section. Cf. also Hume's Essay *On the Academical or Sceptical Philosophy*. The sceptical difficulty is founded on the assumption that the object seen at different distances is the *same visible object*: it is really different, and so the difficulty vanishes.

[2] Here Berkeley expressly introduces 'touch'—a term which with him includes, not merely organic sense of contact, but also muscular and locomotive sense-experience. After this he begins to unfold the antithesis of visual and tactual phenomena, whose subsequent synthesis it is the aim of the *New Theory* to explain. Cf. *Principles of Human Knowledge*, sect. 43—*Theory of Vision Vindicated*, sect. 22 and 25. Note here Berkeley's reticence of his idealization of Matter—tangible as well as visible. Cf. *Principles*, sect. 44.

only suggests to his understanding that, after having passed a certain distance, to be measured by the motion of his body, which is perceivable by touch [1], he shall come to perceive such and such tangible ideas, which have been usually connected with such and such visible ideas. But, that one might be deceived by these suggestions of sense, and that there is no necessary connexion between visible and tangible ideas suggested by them, we need go no farther than the next looking-glass or picture to be convinced. Note that, when I speak of tangible ideas, I take the word idea for any the immediate object of sense, or understanding—in which large signification it is commonly used by the moderns [2].

46. From what we have shewn, it is a manifest consequence that the ideas of space, outness [3], and things placed at a distance are not, strictly speaking, the object of sight [4]; they are not otherwise perceived by the eye than by the ear. Sitting in my study I hear a coach drive along the street; I look through the casement and see it; I walk out and enter into it. Thus, common speech would incline one to think I heard, saw, and touched the same thing, to wit, the coach. It is nevertheless certain the ideas intromitted by each sense are widely different, and distinct from each other; but, having been observed constantly to go together, they are spoken of as one and the same thing. By the variation of the noise, I perceive the different distances of the coach, and know that it approaches before I look out. Thus, by the ear I perceive distance just after the same manner as I do by the eye.

47. I do not nevertheless say I hear distance, in like

[1] This connexion of our knowledge of distance with our locomotive experience points to a theory which ultimately resolves space into experience of unimpeded locomotion.

[2] Locke (*Essay*, Introduction, § 8) takes *idea* vaguely as 'the term which serves best to stand for whatsoever is the object of the understanding when a man thinks.' Oversight of what Berkeley intends by the term idea has made his whole conception of nature and the material universe a riddle to many, of which afterwards.

[3] The expressive term 'outness,' favoured by Berkeley, is here first used.

[4] 'We get the idea of Space,' says Locke, 'both by our sight and touch' (*Essay*, II. 13. § 2). Locke did not contemplate Berkeley's antithesis of visible and tangible extension, and the consequent ambiguity of the term extension; which sometimes signifies *coloured*, and at others *resistant* experience in sense.

manner as I say that I see it—the ideas perceived by hearing not being so apt to be confounded with the ideas of touch as those of sight are. So likewise a man is easily convinced that bodies and external things are not properly the object of hearing, but only sounds, by the mediation whereof the idea of this or that body, or distance, is suggested to his thoughts. But then one is with more difficulty brought to discern the difference there is betwixt the ideas of sight and touch[1]: though it be certain, a man no more sees and feels the same thing, than he hears and feels the same thing.

48. One reason of which seems to be this. It is thought a great absurdity to imagine that one and the same thing should have any more than one extension and one figure. But, the extension and figure of a body being let into the mind two ways, and that indifferently, either by sight or touch, it seems to follow that we see the same extension and the same figure which we feel.

49. But, if we take a close and accurate view of the matter, it must be acknowledged that we never see and feel one and the same object[2]. That which is seen is one thing, and that which is felt is another. If the visible figure and extension be not the same with the tangible figure and extension, we are not to infer that one and the same thing has divers extensions. The true consequence is that the objects of sight and touch are two distinct things[3]. It may perhaps require some thought rightly to conceive this distinction. And the difficulty seems not a little increased, because the combination of visible ideas hath constantly the same name as the combination of tangible ideas wherewith it is connected—which doth of necessity arise from the use and end of language[4].

50. In order, therefore, to treat accurately and unconfusedly of vision, we must bear in mind that there are two sorts of objects apprehended by the eye—the one primarily and immediately, the other secondarily and by intervention of the former. Those of the first sort neither are nor appear to be without the mind, or at any distance off[5].

[1] For an explanation of this difficulty, see sect. 144.

[2] 'object'—'thing,' in the earlier editions.

[3] This is the issue of the analytical portion of the *Essay*.

[4] Cf. sect. 139-40.

[5] Here the question of externality,

They may, indeed, grow greater or smaller, more confused, or more clear, or more faint. But they do not, cannot approach, [or even seem to approach [1]] or recede from us. Whenever we say an object is at a distance, whenever we say it draws near, or goes farther off, we must always mean it of the latter sort, which properly belong to the touch [2], and are not so truly perceived as suggested by the eye, in like manner as thoughts by the ear.

51. No sooner do we hear the words of a familiar language pronounced in our ears but the ideas corresponding thereto present themselves to our minds: in the very same instant the sound and the meaning enter the understanding: so closely are they united that it is not in our power to keep out the one except we exclude the other also. We even act in all respects as if we heard the very thoughts themselves. So likewise the secondary objects, or those which are only suggested by sight, do often more strongly affect us, and are more regarded, than the proper objects of that sense; along with which they enter into the mind, and with which they have a far more strict connexion than ideas have with words [3]. Hence it is we find it so difficult to discriminate between the immediate and mediate objects of sight, and are so prone to attribute to the former what belongs only to the latter. They are, as it were, most closely twisted, blended, and incorporated together. And the prejudice is confirmed and riveted in our thoughts by a long tract of time, by the use of language, and want of reflection. However, I doubt not but any one that shall attentively consider what we have already said, and shall say upon this subject before we have done (especially if he pursue it in his own thoughts), may be able to deliver himself from that prejudice. Sure I am, it is worth some

signifying independence of all percipient life, is again mixed up with that of the invisibility of distance outwards in the line of sight.

[1] Omitted in author's last edition.

[2] i. e. including muscular and locomotive experience as well as sense of contact. But what are the *tangibilia* themselves? Are they also significant, like *visibilia*, of a still ulterior reality? This is the problem of the *Principles of Human Knowledge.*

[3] In this section the conception of a natural Visual Language, makes its appearance, with its implication that Nature is (for us) virtually Spirit. Cf. sect. 140, 147 —*Principles*, sect. 44—*Dialogues of Hylas and Philonous*—*Alciphron*, IV. 8, 11—and *Theory of Vision Vindicated*, passim.

attention to whoever would understand the true nature of vision.

52. I have now done with Distance, and proceed to shew how it is that we perceive by sight the Magnitude of objects [1]. It is the opinion of some that we do it by angles, or by angles in conjunction with distance. But, neither angles nor distance being perceivable by sight [2], and the things we see being in truth at no distance from us [3], it follows that, as we have shewn lines and angles not to be the medium the mind makes use of in apprehending the apparent place, so neither are they the medium whereby it apprehends the apparent magnitude of objects.

53. It is well known that the same extension at a near distance shall subtend a greater angle, and at a farther distance a lesser angle. And by this principle (we are told) the mind estimates the magnitude of an object [4], comparing the angle under which it is seen with its distance, and thence inferring the magnitude thereof. What inclines men to this mistake (beside the humour of making one see by geometry) is, that the same perceptions or ideas which suggest distance do also suggest magnitude. But, if we examine it, we shall find they suggest the latter as immediately as the former. I say, they do not first suggest distance and then leave it to the judgment to use that as a medium whereby to collect the magnitude; but they have as close and immediate a connexion with the magnitude as with the distance; and suggest magnitude as independently of distance, as they do distance independently of magnitude. All which will be evident to whoever considers what has been already said and what follows.

54. It has been shewn there are two sorts of objects apprehended by sight, each whereof has its distinct magnitude, or extension—the one, properly tangible, *i.e.* to be perceived and measured by touch, and not immediately falling under the sense of seeing; the other, properly and immediately visible, by mediation of which the former is brought in view. Each of these magnitudes are greater or

[1] Sect. 52–87 treat of the invisibility of real, i.e. tactual, Magnitude. Cf. *Theory of Vision Vindicated*, sect. 54–61.

[2] Sect. 8–15.

[3] Sect. 41, &c.

[4] See Molyneux's *Treatise on Dioptrics*, B. I. prop. 28.

lesser, according as they contain in them more or fewer points, they being made up of points or minimums. For, whatever may be said of extension in abstract[1], it is certain sensible extension is not infinitely divisible[2]. There is a *minimum tangibile*, and a *minimum visibile*, beyond which sense cannot perceive. This every one's experience will inform him.

55. The magnitude of the object which exists without the mind, and is at a distance, continues always invariably the same: but, the visible object still changing as you approach to or recede from the tangible object, it hath no fixed and determinate greatness. Whenever therefore we speak of the magnitude of any thing, for instance a tree or a house, we must mean the tangible magnitude; otherwise there can be nothing steady and free from ambiguity spoken of it[3]. Now, though the tangible and visible magnitude do in truth belong to two distinct objects[4], I shall nevertheless (especially since those objects are called by the same name, and are observed to coexist[5]), to avoid tediousness and singularity of speech, sometimes speak of them as belonging to one and the same thing.

56. Now, in order to discover by what means the magnitude of tangible objects is perceived by sight, I need only reflect on what passes in my own mind, and observe what those things be which introduce the ideas of greater or lesser into my thoughts when I look on any object. And these I find to be, *first*, the magnitude or extension of the visible object, which, being immediately perceived by sight, is connected with that other which is tangible and placed at a distance: *secondly*, the confusion or distinctness: and *thirdly*, the vigorousness or faintness of the aforesaid

[1] See sect. 122–126.

[2] In short there is a point at which, with our limited sense, we cease to be percipient of colour, in seeing; and of resistance, in locomotion. Though Berkeley regards all visible extensions as sensible, and therefore dependent for their reality on being realised by sentient mind, he does not mean that mind or consciousness is extended. With him, extension, though it exists only in mind,—i. e. as an idea seen, in the case of visible extension, and as an idea touched, in the case of tangible extension,—is yet no *property* of mind. Mind can exist without being percipient of extension, although extension cannot be realised without mind.

[3] But this is true, though less obviously, of tangible as well as of visible objects.

[4] Sect. 49.

[5] Cf. sect. 139, 140, &c.

visible appearance. *Cæteris paribus*, by how much the greater or lesser the visible object is, by so much the greater or lesser do I conclude the tangible object to be. But, be the idea immediately perceived by sight never so large, yet, if it be withal confused, I judge the magnitude of the thing to be but small. If it be distinct and clear, I judge it greater. And, if it be faint, I apprehend it to be yet greater. What is here meant by confusion and faintness has been explained in sect. 35.

57. Moreover, the judgments we make of greatness do, in like manner as those of distance, depend on the disposition of the eye; also on the figure, number, and situation[1] of intermediate objects, and other circumstances that have been observed to attend great or small tangible magnitudes. Thus, for instance, the very same quantity of visible extension which in the figure of a tower doth suggest the idea of great magnitude shall in the figure of a man suggest the idea of much smaller magnitude. That this is owing to the experience we have had of the usual bigness of a tower and a man, no one, I suppose, need be told.

58. It is also evident that confusion or faintness have no more a necessary connexion with little or great magnitude than they have with little or great distance. As they suggest the latter, so they suggest the former to our minds. And, by consequence, if it were not for experience, we should no more judge a faint or confused appearance to be connected with great or little magnitude than we should that it was connected with great or little distance.

59. Nor will it be found that great or small visible magnitude hath any necessary relation to great or small tangible magnitude—so that the one may certainly and infallibly be inferred from the other. But, before we come to the proof of this, it is fit we consider the difference there is betwixt the extension and figure which is the proper object of touch, and that other which is termed visible; and how the former is principally, though not immediately, taken notice of when we look at any object. This has been before mentioned[2], but we shall here inquire into the cause thereof. We regard the objects that environ us in proportion as they are adapted to benefit or injure our own

[1] 'situation'—not in the earlier editions. [2] Sect. 55.

bodies, and thereby produce in our minds the sensations of pleasure or pain. Now, bodies operating on our organs by an immediate application, and the hurt and advantage arising therefrom depending altogether on the tangible, and not at all on the visible, qualities of any object—this is a plain reason why those should be regarded by us much more than these. And for this end [chiefly[1]] the visive sense seems to have been bestowed on animals, to wit, that, by the perception of visible ideas (which in themselves are not capable of affecting or anywise altering the frame of their bodies), they may be able to foresee[2] (from the experience they have had what tangible ideas are connected with such and such visible ideas) the damage or benefit which is like to ensue upon the application of their own bodies to this or that body which is at a distance. Which foresight, how necessary it is to the preservation of an animal, every one's experience can inform him. Hence it is that, when we look at an object, the tangible figure and extension thereof are principally attended to; whilst there is small heed taken of the visible figure and magnitude, which, though more immediately perceived, do less sensibly affect us, and are not fitted to produce any alteration in our bodies.

60. That the matter of fact is true will be evident to any one who considers that a man placed at ten foot distance is thought as great as if he were placed at the distance only of five foot; which is true, not with relation to the visible, but tangible greatness of the object: the visible magnitude being far greater at one station than it is at the other.

61. Inches, feet, &c. are settled, stated lengths, whereby we measure objects and estimate their magnitude. We say, for example, an object appears to be six inches, or six foot long. Now, that this cannot be meant of visible inches, &c. is evident, because a visible inch is itself no constant determinate magnitude[3], and cannot therefore serve to mark out and determine the magnitude of any

[1] Omitted in the author's last edition.

[2] Ordinary sight is virtually foresight. Cf. sect. 85.—See also Malebranche on the external senses, as given primarily for the urgent needs of embodied life, not to immediately convey scientific knowledge, *Recherche*, Liv. I. ch. 5, 6, 9, &c.

[3] Sect. 44.—See also sect. 55, and note.

other thing. Take an inch marked upon a ruler; view it successively, at the distance of half a foot, a foot, a foot and a half, &c. from the eye: at each of which, and at all the intermediate distances, the inch shall have a different visible extension, *i.e.* there shall be more or fewer points discerned in it. Now, I ask which of all these various extensions is that stated determinate one that is agreed on for a common measure of other magnitudes? No reason can be assigned why we should pitch on one more than another. And, except there be some invariable determinate extension fixed on to be marked by the word inch, it is plain it can be used to little purpose; and to say a thing contains this or that number of inches shall imply no more than that it is extended, without bringing any particular idea of that extension into the mind. Farther, an inch and a foot, from different distances, shall both exhibit the same visible magnitude, and yet at the same time you shall say that one seems several times greater than the other. From all which it is manifest, that the judgments we make of the magnitude of objects by sight are altogether in reference to their tangible extension. Whenever we say an object is great or small, of this or that determinate measure, I say, it must be meant of the tangible and not the visible extension[1], which, though immediately perceived, is nevertheless little taken notice of.

62. Now, that there is no necessary connexion between these two distinct extensions is evident from hence—because our eyes might have been framed in such a manner as to be able to see nothing but what were less than the *minimum tangibile*. In which case it is not impossible we might have perceived all the immediate objects of sight the very same that we do now; but unto those visible appearances there would not be connected those different tangible magnitudes that are now. Which shews the judgments we make of the magnitude of things placed at a distance, from the various greatness of the immediate objects of sight, do not

[1] This supposes 'settled' *tangibilia*, but not 'settled' *visibilia*. Yet the sensible extension given in touch and locomotive experience is also relative—an object being *felt* as larger or smaller according to the state of the organism, and the other conditions of our embodied perception.

arise from any essential or necessary, but only a customary, tie which has been observed betwixt them.

63. Moreover, it is not only certain that any idea of sight might not have been connected with this or that idea of touch we now observe to accompany it, but also that the greater visible magnitudes might have been connected with and introduced into our minds lesser tangible magnitudes, and the lesser visible magnitudes greater tangible magnitudes. Nay, that it actually is so, we have daily experience—that object which makes a strong and large appearance not seeming near so great as another the visible magnitude whereof is much less, but more faint, [1] and the appearance upper, or which is the same thing, painted lower on the retina, which faintness and situation suggest both greater magnitude and greater distance.

64. From which, and from sect. 57 and 58, it is manifest that, as we do not perceive the magnitude of objects immediately by sight, so neither do we perceive them by the mediation of anything which has a necessary connexion with them. Those ideas that now suggest unto us the various magnitudes of external objects before we touch them might possibly have suggested no such thing; or they might have signified them in a direct contrary manner, so that the very same ideas on the perception whereof we judge an object to be small might as well have served to make us conclude it great;—those ideas being in their own nature equally fitted to bring into our minds the idea of small or great, or no size at all, of outward objects [2], just as the words of any language are in their own nature indifferent to signify this or that thing, or nothing at all.

65. As we see distance so we see magnitude. And we see both in the same way that we see shame or anger in the looks of a man. Those passions are themselves invisible; they are nevertheless let in by the eye along with colours and alterations of countenance which are the immediate object of vision, and which signify them for no other reason than barely because they have been observed to accompany them. Without which experience we should

[1] What follows, to end of sect. 63, added in the author's last edition.

[2] 'outward objects,' i. e. objects of which we are percipient in tactual experience, taken in this *Essay* provisionally as the real external objects. See *Principles*, sect. 44.

no more have taken blushing for a sign of shame than of gladness.

66. We are nevertheless exceedingly prone to imagine those things which are perceived only by the mediation of others to be themselves the immediate objects of sight, or at least to have in their own nature a fitness to be suggested by them before ever they had been experienced to coexist with them. From which prejudice every one perhaps will not find it easy to emancipate himself, by any the clearest convictions of reason. And there are some grounds to think that, if there was one only invariable and universal language in the world, and that men were born with the faculty of speaking it, it would be the opinion of some, that the ideas in other men's minds were properly perceived by the ear, or had at least a necessary and inseparable tie with the sounds that were affixed to them. All which seems to arise from want of a due application of our discerning faculty, thereby to discriminate between the ideas that are in our understandings, and consider them apart from each other; which would preserve us from confounding those that are different, and make us see what ideas do, and what do not, include or imply this or that other idea[1].

67. There is a celebrated phenomenon[2] the solution whereof I shall attempt to give, by the principles that have been laid down, in reference to the manner wherein we apprehend by sight the magnitude of objects.—The apparent magnitude of the moon, when placed in the horizon, is much greater than when it is in the meridian, though the angle under which the diameter of the moon is seen be not observed greater in the former case than in the latter; and

[1] Cf. sect. 144. Note, in this and the three preceding sections, the stress laid on the *arbitrariness* of the connexion between the signs which suggest magnitudes, or other modes of extension, and their significates. This is the foundation of the *New Theory*; which thus resolves *physical* causality into a relation of signs to what they signify and predict—analogous to the relation between words and their accepted meanings.

[2] In sect. 67–78, Berkeley attempts to verify the foregoing account of the natural signs of Size, by applying it to solve a phenomenon, the cause of which had been long debated among men of science—the visible magnitude of heavenly bodies when seen in the horizon.

the horizontal moon doth not constantly appear of the same bigness, but at some times seemeth far greater than at others.

68. Now, in order to explain the reason of the moon's appearing greater than ordinary in the horizon, it must be observed that the particles which compose our atmosphere do intercept the rays of light proceeding from any object to the eye; and, by how much the greater is the portion of atmosphere interjacent between the object and the eye, by so much the more are the rays intercepted, and, by consequence, the appearance of the object rendered more faint—every object appearing more vigorous or more faint in proportion as it sendeth more or fewer rays into the eye. Now, between the eye and the moon when situated in the horizon there lies a far greater quantity of atmosphere than there does when the moon is in the meridian. Whence it comes to pass, that the appearance of the horizontal moon is fainter, and therefore, by sect. 56, it should be thought bigger in that situation than in the meridian, or in any other elevation above the horizon.

69. Farther, the air being variously impregnated, sometimes more and sometimes less, with vapours and exhalations fitted to retund and intercept the rays of light, it follows that the appearance of the horizontal moon hath not always an equal faintness, and, by consequence, that luminary, though in the very same situation, is at one time judged greater than at another.

70. That we have here given the true account of the phenomena of the horizontal moon, will, I suppose, be farther evident to any one from the following considerations:—*First*, it is plain, that which in this case suggests the idea of greater magnitude, must be something which is itself perceived; for, that which is unperceived cannot suggest to our perception any other thing[1]. *Secondly*, it must be something that does not constantly remain the same, but is subject to some change or variation; since the appearance of the horizontal moon varies, being at one time greater than at another. [*Thirdly*, it must not lie in the circumjacent or intermediate objects, such as mountains, houses, fields, &c.; because that when all those objects are

[1] Cf. sect. 10.

excluded from sight the appearance is as great as ever[1].] And yet, *thirdly*[2], it cannot be the visible figure or magnitude; since that remains the same, or is rather lesser, by how much the moon is nearer to the horizon. It remains therefore, that the true cause is that affection or alteration of the visible appearance, which proceeds from the greater paucity of rays arriving at the eye, and which I term faintness: since this answers all the forementioned conditions, and I am not conscious of any other perception that does.

71. Add to this that in misty weather it is a common observation, that the appearance of the horizontal moon is far larger than usual, which greatly conspires with and strengthens our opinion. Neither would it prove in the least irreconcilable with what we have said, if the horizontal moon should chance sometimes to seem enlarged beyond its usual extent, even in more serene weather. For, we must not only have regard to the mist which happens to be in the place where we stand; we ought also to take into our thoughts the whole sum of vapours and exhalations which lie betwixt the eye and the moon: all which co-operating to render the appearance of the moon more faint, and thereby increase its magnitude, it may chance to appear greater than it usually does even in the horizontal position, at a time when, though there be no extraordinary fog or haziness just in the place where we stand, yet the air between the eye and the moon, taken altogether, may be loaded with a greater quantity of interspersed vapours and exhalations than at other times[3].

72. It may be objected that, in consequence of our principles, the interposition of a body in some degree opaque, which may intercept a great part of the rays of light, should render the appearance of the moon in the meridian as large as when it is viewed in the horizon. To which I answer, it is not faintness anyhow applied that suggests

[1] Omitted in the author's last edition. Cf. sect. 76, 77.—The explanation in question is attributed to Alhazen, and by Bacon to Ptolemy, while it is sanctioned by eminent scientific names before and since Berkeley.

[2] 'Fourthly' in the second edition. Cf. what follows with sect. 74. Why 'lesser'?

[3] When Berkeley, some years afterwards, visited Italy, he remarked that distant objects appeared to him much nearer than they really were—a phenomenon which he attributed to the comparative purity of the southern air.

greater magnitude ; there being no necessary, but only an experimental, connexion between those two things. It follows that the faintness which enlarges the appearance must be applied in such sort, and with such circumstances, as have been observed to attend the vision of great magnitudes. When from a distance we behold great objects, the particles of the intermediate air and vapours, which are themselves unperceivable, do interrupt the rays of light, and thereby render the appearance less strong and vivid. Now, faintness of appearance, caused in this sort, hath been experienced to co-exist with great magnitude. But when it is caused by the interposition of an opaque sensible body, this circumstance alters the case ; so that a faint appearance this way caused does not suggest greater magnitude, because it hath not been experienced to co-exist with it.

73. Faintness, as well as all other ideas or perceptions which suggest magnitude or distance, does it in the same way that words suggest the notions to which they are annexed. Now, it is known a word pronounced with certain circumstances, or in a certain context with other words, hath not always the same import and signification that it hath when pronounced in some other circumstances, or different context of words. The very same visible appearance, as to faintness and all other respects, if placed on high, shall not suggest the same magnitude that it would if it were seen at an equal distance on a level with the eye. The reason whereof is, that we are rarely accustomed to view objects at a great height ; our concerns lie among things situated rather before than above us ; and accordingly our eyes are not placed on the top of our heads, but in such a position as is most convenient for us to see distant objects standing in our way. And, this situation of them being a circumstance which usually attends the vision of distant objects, we may from hence account for (what is commonly observed) an object's appearing of different magnitude, even with respect to its horizontal extension, on the top of a steeple, *e.g.* a hundred feet high, to one standing below, from what it would if placed at a hundred feet distance, on a level with his eye. For, it hath been shewn that the judgment we make on the magnitude of a thing depends not on the visible appearance only, but also on divers other circumstances, any

one of which being omitted or varied may suffice to make some alteration in our judgment. Hence, the circumstance of viewing a distant object in such a situation as is usual and suits with the ordinary posture of the head and eyes, being omitted, and instead thereof a different situation of the object, which requires a different posture of the head, taking place—it is not to be wondered at if the magnitude be judged different. But it will be demanded, why a high object should constantly appear less than an equidistant low object of the same dimensions; for so it is observed to be. It may indeed be granted that the variation of some circumstances may vary the judgment made on the magnitude of high objects, which we are less used to look at; but it does not hence appear why they should be judged less rather than greater? I answer, that in case the magnitude of distant objects was suggested by the extent of their visible appearance alone, and thought proportional thereto, it is certain they would then be judged much less than now they seem to be. (Vid. sect. 79.) But, several circumstances concurring to form the judgment we make on the magnitude of distant objects, by means of which they appear far larger than others whose visible appearance hath an equal or even greater extension, it follows that upon the change or omission of any of those circumstances which are wont to attend the vision of distant objects, and so come to influence the judgments made on their magnitude, they shall proportionably appear less than otherwise they would. For, any of those things that caused an object to be thought greater than in proportion to its visible extension being either omitted, or applied without the usual circumstances, the judgment depends more entirely on the visible extension; and consequently the object must be judged less. Thus, in the present case the situation of the thing seen being different from what it usually is in those objects we have occasion to view, and whose magnitude we observe, it follows that the very same object being a hundred feet high, should seem less than if it was a hundred feet off, on (or nearly on) a level with the eye. What has been here set forth seems to me to have no small share in contributing to magnify the appearance of the horizontal moon, and deserves not to be passed over in the explication of it.

74. If we attentively consider the phenomenon before us, we shall find the not discerning between the mediate and immediate objects of sight to be the chief cause of the difficulty that occurs in the explication of it. The magnitude of the visible moon, or that which is the proper and immediate object of vision[1], is no greater when the moon is in the horizon than when it is in the meridian. How comes it, therefore, to seem greater in one situation than the other? What is it can put this cheat on the understanding? It has no other perception of the moon than what it gets by sight. And that which is seen is of the same extent—I say, the visible appearance hath the very same, or rather a less, magnitude, when the moon is viewed in the horizontal than when in the meridional position. And yet it is esteemed greater in the former than in the latter. Herein consists the difficulty; which doth vanish and admit of the most easy solution, if we consider that as the visible moon is not greater in the horizon than in the meridian, so neither is it thought to be so. It hath been already shewn that, in any act of vision, the visible object absolutely, or in itself, is little taken notice of—the mind still carrying its view from that to some tangible ideas, which have been observed to be connected with it, and by that means come to be suggested by it. So that when a thing is said to appear great or small, or whatever estimate be made of the magnitude of any thing, this is meant not of the visible but of the tangible object. This duly considered, it will be no hard matter to reconcile the seeming contradiction there is, that the moon should appear of a different bigness, the visible magnitude thereof remaining still the same. For, by sect. 56, the very same visible extension, with a different faintness, shall suggest a different tangible extension. When therefore the horizontal moon is said to appear greater than the meridional moon, this must be understood, not of a greater visible extension, but of a greater tangible extension, which, by reason of the more than ordinary faintness of the visible appearance, is suggested to the mind along with it.

[1] i. e. the original perception, apart from any synthetic operation of suggestion and inferential thought, founded on visual signs.

75. Many attempts have been made by learned men to account for this appearance [1]. Gassendus [2], Des Cartes [3], Hobbes [4], and several others have employed their thoughts on that subject; but how fruitless and unsatisfactory their endeavours have been is sufficiently shewn in the *Philosophical Transactions* [5] (Numb. 187, p. 314), where you may see their several opinions at large set forth and confuted, not without some surprise at the gross blunders that ingenious men have been forced into by endeavouring to reconcile this appearance with the ordinary principles of optics [6]. Since the writing of which there hath been published in the *Transactions* (Numb. 187, p. 323) another paper relating to the same affair, by the celebrated Dr. Wallis, wherein he attempts to account for that phenomenon; which, though it seems not to contain anything new, or different from what had been said before by others, I shall nevertheless consider in this place.

76. His opinion, in short, is this:—We judge not of the magnitude of an object by the optic angle alone, but by the optic angle in conjunction with the distance. Hence, though the angle remain the same, or even become less, yet, if withal the distance seem to have been increased, the object shall appear greater. Now, one way whereby we estimate the distance of anything is by the number and extent of the intermediate objects. When therefore the moon is seen in the horizon, the variety of

[1] In Riccioli's *Almagest*, II. lib. X. sect. 6. quest. 14, we have an account of many hypotheses then current, in explanation of the apparent magnitude of the horizontal moon.

[2] Gassendi's 'Epistolæ quatuor de apparente magnitudine solis humilis et sublimis.'—*Opera*, tom. III. pp. 420–477. Cf. Appendix to this *Essay*, p. 110.

[3] See *Dioptrique*, VI.

[4] *Opera Latina*, vol. I. p. 376, vol. II. pp. 26–62; *English Works*, vol. I. p. 462. (Molesworth's Edition.)

[5] The paper in the Transactions is by Molyneux.

[6] See Smith's *Optics*, pp. 64–67, and *Remarks*, pp. 48, &c. At p. 55 Berkeley's *New Theory* is referred to, and pronounced to be at variance with experience. Smith concludes by saying, that in 'the second edition of Berkeley's *Essay*, and also in a Vindication and Explanation of it (called the *Visual Language*), very lately published, the author has made some additions to his solution of the said phenomenon; but seeing it still involves and depends on the principle of faintness, I may leave the rest of it to the reader's consideration.' This, which appeared in 1738, is one of the very few early references to Berkeley's *New Theory of Vision Vindicated*.

fields, houses, &c. together with the large prospect of the wide extended land or sea that lies between the eye and the utmost limb of the horizon, suggest unto the mind the idea of greater distance, and consequently magnify the appearance. And this, according to Dr. Wallis, is the true account of the extraordinary largeness attributed by the mind to the horizontal moon, at a time when the angle subtended by its diameter is not one jot greater than it used to be.

77. With reference to this opinion, not to repeat what has been already said concerning distance [1], I shall only observe, *first*, that if the prospect of interjacent objects be that which suggests the idea of farther distance, and this idea of farther distance be the cause that brings into the mind the idea of greater magnitude, it should hence follow that if one looked at the horizontal moon from behind a wall, it would appear no bigger than ordinary. For, in that case, the wall interposing cuts off all that prospect of sea and land, &c. which might otherwise increase the apparent distance, and thereby the apparent magnitude of the moon. Nor will it suffice to say, the memory doth even then suggest all that extent of land, &c. which lies within the horizon, which suggestion occasions a sudden judgment of sense, that the moon is farther off and larger than usual. For, ask any man who from such a station beholding the horizontal moon shall think her greater than usual, whether he hath at that time in his mind any idea of the intermediate objects, or long tract of land that lies between his eye and the extreme edge of the horizon? and whether it be that idea which is the cause of his making the aforementioned judgment? He will, without doubt, reply in the negative, and declare the horizontal moon shall appear greater than the meridional, though he never thinks of all or any of those things that lie between him and it. [And as for the absurdity of any idea's introducing into the mind another, whilst itself is not perceived, this has already fallen under our observation, and is too evident to need any farther enlargement on it [2].] *Secondly*, it seems impossible, by this hypothesis, to account for the moon's

[1] Sect. 2–51. [2] This sentence is omitted in the author's last edition.

appearing, in the very same situation, at one time greater than at another; which, nevertheless, has been shewn to be very agreeable to the principles we have laid down, and receives a most easy and natural explication from them. [[1]For the further clearing up of this point, it is to be observed, that what we immediately and properly see are only lights and colours in sundry situations and shades, and degrees of faintness and clearness, confusion and distinctness. All which visible objects are only in the mind; nor do they suggest aught external[2], whether distance or magnitude, otherwise than by habitual connexion, as words do things. We are also to remark, that beside the straining of the eyes, and beside the vivid and faint, the distinct and confused appearances (which, bearing some proportion to lines and angles, have been substituted instead of them in the foregoing part of this Treatise), there are other means which suggest both distance and magnitude—particularly the situation of visible points or objects, as upper or lower; the former suggesting a farther distance and greater magnitude, the latter a nearer distance and lesser magnitude—all which is an effect only of custom and experience, there being really nothing intermediate in the line of distance between the uppermost and the lowermost, which are both equidistant, or rather at no distance from the eye; as there is also nothing in upper or lower which by necessary connexion should suggest greater or lesser magnitude. Now, as these customary experimental means of suggesting distance do likewise suggest magnitude, so they suggest the one as immediately as the other. I say, they do not (vide sect. 53) first suggest distance, and then leave the mind from thence to infer or compute magnitude, but suggest magnitude as immediately and directly as they suggest distance.]

78. This phenomenon of the horizontal moon is a clear instance of the insufficiency of lines and angles for explaining the way wherein the mind perceives and estimates the magnitude of outward objects. There is, nevertheless, a use of computation by them[3]—in order to determine the

[1] What follows to the end of this section is not contained in the first edition.

[2] i. e. tangible.

[3] Cf. sect. 38; and *Theory of Vision Vindicated*, sect. 31.

apparent magnitude of things, so far as they have a connexion with and are proportional to those other ideas or perceptions which are the true and immediate occasions that suggest to the mind the apparent magnitude of things. But this in general may, I think, be observed concerning mathematical computation in optics—that it can never[1] be very precise and exact[2], since the judgments we make of the magnitude of external things do often depend on several circumstances which are not proportional to or capable of being defined by lines and angles.

79. From what has been said, we may safely deduce this consequence, to wit, that a man born blind, and made to see, would, at first opening of his eyes, make a very different judgment of the magnitude of objects intromitted by them from what others do. He would not consider the ideas of sight with reference to, or as having any connexion with, the ideas of touch. His view of them being entirely terminated within themselves, he can no otherwise judge them great or small than as they contain a greater or lesser number of visible points. Now, it being certain that any visible point can cover or exclude from view only one other visible point, it follows that whatever object intercepts the view of another hath an equal number of visible points with it; and, consequently, they shall both be thought by him to have the same magnitude. Hence, it is evident one in those circumstances would judge his thumb, with which he might hide a tower, or hinder its being seen, equal to that tower; or his hand, the interposition whereof might conceal the firmament from his view, equal to the firmament: how great an inequality soever there may, in our apprehensions, seem to be betwixt those two things, because of the customary and close connexion that has grown up in our minds between the objects of sight and touch, whereby the very different and distinct ideas of those two senses are so blended and confounded together as to be mistaken for one and the same thing—out of which prejudice we cannot easily extricate ourselves.

[1] 'Never'—'hardly,' in first edition.

[2] Cf. Appendix, p. 208.—See Smith's *Optics*, B. I. ch. v, and *Remarks*, p. 56, in which he 'leaves it to be considered, whether the said phenomenon is not as clear an instance of the insufficiency of faintness' as of mathematical computation.

80. For the better explaining the nature of vision, and setting the manner wherein we perceive magnitudes in a due light, I shall proceed to make some observations concerning matters relating thereto, whereof the want of reflection, and duly separating between tangible and visible ideas, is apt to create in us mistaken and confused notions. And, *first*, I shall observe, that the *minimum visibile* is exactly equal in all beings whatsoever that are endowed with the visive faculty[1]. No exquisite formation of the eye, no peculiar sharpness of sight, can make it less in one creature than in another; for, it not being distinguishable into parts, nor in anywise consisting of them, it must necessarily be the same to all. For, suppose it otherwise, and that the *minimum visibile* of a mite, for instance, be less than the *minimum visibile* of a man; the latter therefore may, by detraction of some part, be made equal to the former. It doth therefore consist of parts, which is inconsistent with the notion of a *minimum visibile* or point.

81. It will, perhaps, be objected, that the *minimum visibile* of a man doth really and in itself contain parts whereby it surpasses that of a mite, though they are not perceivable by the man. To which I answer, the *minimum visibile* having (in like manner as all other the proper and immediate objects of sight) been shewn not to have any existence without the mind of him who sees it, it follows there cannot be any part of it that is not actually perceived and therefore visible. Now, for any object to contain several distinct

[1] A favourite doctrine with Berkeley, according to whose theory of visibles there can be no absolute visible magnitude, the *minimum* being the least that is *perceivable* by each seeing subject, and thus relative to his visual capacity. This section is thus criticised, in January, 1752, in a letter signed 'Anti-Berkeley,' in the *Gent. Mag.* (vol. XXII. p. 12): 'Upon what his lordship asserts with respect to the *minimum visibile*, I would observe that it is certain that there are infinite numbers of animals which are imperceptible to the naked eye, and cannot be perceived but by the help of a microscope; consequently there are animals whose whole bodies are far less than the *minimum visibile* of a man. Doubtless these animals have eyes, and, if their *minimum visibile* were equal to that of a man, it would follow that they cannot perceive anything but what is much larger than their whole body; and therefore their own bodies must be invisible to them, because we know they are so to men, whose *minimum visibile* is asserted by his lordship to be equal to theirs.' There is some misconception in this. Cf. Appendix to *Essay*, p. 209.

visible parts, and at the same time to be a *minimum visibile*, is a manifest contradiction.

82. Of these visible points we see at all times an equal number. It is every whit as great when our view is contracted and bounded by near objects as when it is extended to larger and remoter ones. For, it being impossible that one *minimum visibile* should obscure or keep out of sight more than one other, it is a plain consequence that, when my view is on all sides bounded by the walls of my study, I see just as many visible points as I could in case that, by the removal of the study-walls and all other obstructions, I had a full prospect of the circumjacent fields, mountains, sea, and open firmament. For, so long as I am shut up within the walls, by their interposition every point of the external objects is covered from my view. But, each point that is seen being able to cover or exclude from sight one only other corresponding point, it follows that, whilst my sight is confined to those narrow walls, I see as many points, or *minima visibilia*, as I should were those walls away, by looking on all the external objects whose prospect is intercepted by them. Whenever, therefore, we are said to have a greater prospect at one time than another, this must be understood with relation, not to the proper and immediate, but the secondary and mediate objects of vision—which, as hath been shewn, do properly belong to the touch.

83. The visive faculty, considered with reference to its immediate objects, may be found to labour of two defects. *First*, in respect of the extent or number of visible points that are at once perceivable by it, which is narrow and limited to a certain degree. It can take in at one view but a certain determinate number of *minima visibilia*, beyond which it cannot extend its prospect. *Secondly*, our sight is defective in that its view is not only narrow, but also for the most part confused. Of those things that we take in at one prospect, we can see but a few at once clearly and unconfusedly; and the more we fix our sight on any one object, by so much the darker and more indistinct shall the rest appear.

84. Corresponding to these two defects of sight, we may imagine as many perfections, to wit, 1st. That of comprehending in one view a greater number of visible points;

2dly. of being able to view them all equally and at once, with the utmost clearness and distinction. That those perfections are not actually in some intelligences of a different order and capacity from ours, it is impossible for us to know[1].

85. In neither of those two ways do microscopes contribute to the improvement of sight. For, when we look through a microscope, we neither see more visible points, nor are the collateral points more distinct, than when we look with the naked eye at objects placed at a due distance. A microscope brings us, as it were, into a new world. It presents us with a new scene of visible objects, quite different from what we behold with the naked eye. But herein consists the most remarkable difference, to wit, that whereas the objects perceived by the eye alone have a certain connexion with tangible objects, whereby we are taught to foresee what will ensue upon the approach or application of distant objects to the parts of our own body —which much conduceth to its preservation[2]—there is not the like connexion between things tangible and those visible objects that are perceived by help of a fine microscope.

86. Hence, it is evident that, were our eyes turned into the nature of microscopes, we should not be much benefitted by the change. We should be deprived of the forementioned advantage we at present receive by the visive faculty, and have left us only the empty amusement of seeing, without any other benefit arising from it. But, in that case, it will perhaps be said, our sight would be endued with a far greater sharpness and penetration than it now hath. But I would fain know wherein consists that sharpness which is esteemed so great an excellency of sight. It is certain, from what we have already shewn[3], that the *minimum visibile* is never greater or lesser, but in all cases constantly the same. And in the case of microscopical eyes, I see only this difference, to wit, that upon the ceasing of a certain observable connexion betwixt the divers perceptions of sight and touch, which before enabled us to

[1] Those two defects belong to human consciousness. See Locke's *Essay*, II. 10, on the defects of human memory. It is this imperfection which makes reasoning needful—to assist finite intuition. Reasoning is the sign at once of our dignity and our weakness.

[2] Sect. 59.

[3] Sect. 80–82.

regulate our actions by the eye, it would now be rendered utterly unserviceable to that purpose.

87. Upon the whole, it seems that if we consider the use and end of sight, together with the present state and circumstances of our being, we shall not find any great cause to complain of any defect or imperfection in it, or easily conceive how it could be mended. With such admirable wisdom is that faculty contrived, both for the pleasure and convenience of life.

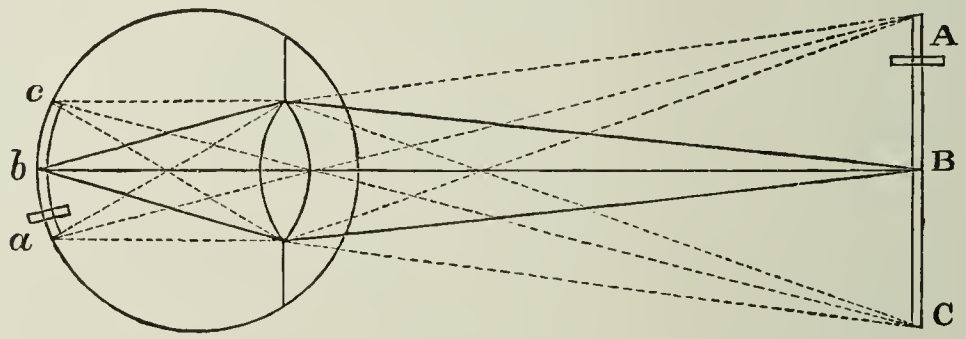
88. Having finished what I intended to say concerning the Distance and Magnitude of objects, I come now to treat of the manner wherein the mind perceives by sight their Situation [1]. Among the discoveries of the last age, it is reputed none of the least, that the manner of vision has been more clearly explained than ever it had been before. There is, at this day, no one ignorant that the pictures of external objects are painted on the retina or fund of the eye; that we can see nothing which is not so painted; and that, according as the picture is more distinct or confused, so also is the perception we have of the object [2]. But then, in this explication of vision, there occurs one mighty difficulty, viz. the objects are painted in an inverted order on the bottom of the eye: the upper part of any object being painted on the lower part of the eye, and the lower part of the object on the upper part of the eye; and so also as to right and left. Since therefore the pictures are thus inverted, it is demanded, how it comes to pass that we see the objects erect and in their natural posture?

89. In answer to this difficulty, we are told that the mind, perceiving an impulse of a ray of light on the upper part of the eye, considers this ray as coming in a direct line from the lower part of the object; and, in like manner, tracing the ray that strikes on the lower part of the eye, it is directed to the upper part of the object. Thus, in the adjacent figure, C, the lower point of the object ABC, is projected on c the upper part of the eye. So likewise, the highest point A is projected on a the lowest part of the eye; which makes the representation *cba* inverted. But the mind—considering

[1] Sect. 88–119 relate to the nature, invisibility, and arbitrary visual signs of Situation, or of the localities of tangible things. Cf. *Theory of Vision Vindicated*, sect. 44–53.

[2] Cf. sect. 2, 114, 116, 118.

the stroke that is made on *c* as coming in the straight line *Cc* from the lower end of the object; and the stroke or impulse on *a*, as coming in the line *Aa* from the upper end of the object—is directed to make a right judgment of the situation of the object *ABC*, notwithstanding the picture of it be inverted. Moreover, this is illustrated by conceiving a blind man, who, holding in his hands two sticks that cross each other, doth with them touch the extremities of an object, placed in a perpendicular situation [1]. It is certain this man will judge that to be the upper part of the object which he touches with the stick held in the undermost hand, and that to be the lower part of the object



which he touches with the stick in his uppermost hand. This is the common explication of the erect appearance of objects, which is generally received and acquiesced in, being (as Mr. Molyneux tells us, *Diopt.* part ii. ch. vii. p. 289) 'allowed by all men as satisfactory.'

90. But this account to me does not seem in any degree true. Did I perceive those impulses, decussations, and directions of the rays of light, in like manner as hath been set forth, then, indeed, it would not at first view be altogether void of probability. And there might be some pretence for the comparison of the blind man and his cross sticks. But the case is far otherwise. I know very well that I perceive no such thing. And, of consequence, I cannot thereby make an estimate of the situation of objects. Moreover, I appeal to any one's experience, whether he be conscious to himself that he thinks on the intersection made by the radius pencils, or pursues the impulses they give in right lines, whenever he perceives by sight the position of

[1] This illustration is taken from Descartes. See Appendix.

any object? To me it seems evident that crossing and tracing of the rays, &c. is never thought on by children, idiots, or, in truth, by any other, save only those who have applied themselves to the study of optics. And for the mind to judge of the situation of objects by those things without perceiving them, or to perceive them without knowing it [1], take which you please, it is perfectly beyond my comprehension. Add to this, that the explaining the manner of vision by the example of cross sticks, and hunting for the object along the axes of the radius pencils, doth suppose the proper objects of sight to be perceived at a distance from us, contrary to what hath been demonstrated [2]. [We may therefore venture to pronounce this opinion, concerning the way wherein the mind perceives the erect appearance of objects, to be of a piece with those other tenets of writers in optics, which in the foregoing parts of this treatise we have had occasion to examine and refute [3].]

91. It remains, therefore, that we look for some other explication of this difficulty. And I believe it not impossible to find one, provided we examine it to the bottom, and carefully distinguish between the ideas of sight and touch; which cannot be too oft inculcated in treating of vision [4]. But, more especially throughout the consideration of this affair, we ought to carry that distinction in our thoughts; for that from want of a right understanding thereof, the difficulty of explaining erect vision seems chiefly to arise.

92. In order to disentangle our minds from whatever prejudices we may entertain with relation to the subject in hand, nothing seems more apposite than the taking into our thoughts the case of one born blind, and afterwards, when grown up, made to see. And—though perhaps it may not be a task altogether easy and familiar to us, to divest ourselves entirely of the experiences received from sight, so as to be able to put our thoughts exactly in the posture of such a one's—we must, nevertheless, as far as possible, endeavour to frame true conceptions of what might reasonably be supposed to pass in his mind [5].

[1] Sect. 10 and 19.
[2] Sect. 2–51.
[3] Omitted in author's last edition.
[4] This is Berkeley's universal solvent of the psychological difficulties involved in visual-perception.
[5] Cf. sect. 103, 106, 110, 128, &c.

93. It is certain that a man actually blind, and who had continued so from his birth, would, by the sense of feeling, attain to have ideas of upper and lower. By the motion of his hand, he might discern the situation of any tangible object placed within his reach. That part on which he felt himself supported, or towards which he perceived his body to gravitate, he would term *lower*, and the contrary to this *upper*; and accordingly denominate whatsoever objects he touched.

94. But then, whatever judgments he makes concerning the situation of objects are confined to those only that are perceivable by touch. All those things that are intangible, and of a spiritual nature—his thoughts and desires, his passions, and in general all the modifications of his soul—to these he would never apply the terms upper and lower, except only in a metaphorical sense. He may perhaps, by way of allusion, speak of high or low thoughts: but those terms, in their proper signification, would never be applied to anything that was not conceived to exist without the mind. For, a man born blind, and remaining in the same state, could mean nothing else by the words higher and lower than a greater or lesser distance from the earth; which distance he would measure by the motion or application of his hand, or some other part of his body. It is, therefore, evident that all those things which, in respect of each other, would by him be thought higher or lower, must be such as were conceived to exist without his mind, in the ambient space[1].

95. Whence it plainly follows, that such a one, if we suppose him made to see, would not at first sight think that anything he saw was high or low, erect or inverted. For, it hath been already demonstrated, in sect. 41, that he would not think the things he perceived by sight to be at any distance from him, or without his mind. The objects to which he had hitherto been used to apply the terms up and down, high and low, were such only as affected, or were some way perceived by his touch. But the proper

Berkeley treats this case hypothetically in the *Essay*, in defect of actual experiments upon the born-blind, since accumulated from Cheselden downwards. See however the Appendix, and *Theory of Vision Vindicated*, sect. 71.

[1] i. e. tangible things. Cf. *Principles*, sect. 44.

objects of vision make a new set of ideas, perfectly distinct and different from the former, and which can in no sort make themselves perceived by touch. There is, therefore, nothing at all that could induce him to think those terms applicable to them. Nor would he ever think it, till such time as he had observed their connexion with tangible objects, and the same prejudice[1] began to insinuate itself into his understanding, which, from their infancy, had grown up in the understandings of other men.

96. To set this matter in a clearer light, I shall make use of an example. Suppose the above-mentioned blind person, by his touch, perceives a man to stand erect. Let us inquire into the manner of this. By the application of his hand to the several parts of a human body, he had perceived different tangible ideas; which being collected into sundry complex ones[2] have distinct names annexed to them. Thus, one combination of a certain tangible figure, bulk, and consistency of parts is called the head; another the hand; a third the foot, and so of the rest—all which complex ideas could, in his understanding, be made up only of ideas perceivable by touch. He had also, by his touch, obtained an idea of earth or ground, towards which he perceives the parts of his body to have a natural tendency. Now—by *erect* nothing more being meant than that perpendicular position of a man wherein his feet are nearest to the earth—if the blind person, by moving his hand over the parts of the man who stands before him, do perceive the tangible ideas that compose the head to be farthest from, and those that compose the feet to be nearest to, that other combination of tangible ideas which he calls earth, he will denominate that man erect. But, if we suppose him on a sudden to receive his sight, and that he behold a man standing before him, it is evident, in that case, he would neither judge the man he sees to be erect nor inverted; for he, never having known those terms applied to any other save tangible things, or which existed in the space without him, and what he sees neither being tangible, nor perceived as existing without, he could not

[1] The 'prejudice,' to wit, which Berkeley would dissolve by his introspective analysis of vision. Cf. *Theory of Vision Vindicated*, sect. 35.

[2] Thus forming individual concrete things out of what is perceived separately through different senses.

know that, in propriety of language, they were applicable to it.

97. Afterwards, when, upon turning his head or eyes up and down to the right and left, he shall observe the visible objects to change, and shall also attain to know that they are called by the same names, and connected with the objects perceived by touch; then, indeed, he will come to speak of them and their situation in the same terms that he has been used to apply to tangible things: and those that he perceives by turning up his eyes he will call upper, and those that by turning down his eyes he will call lower.

98. And this seems to me the true reason why he should think those objects uppermost that are painted on the lower part of his eye. For, by turning the eye up they shall be distinctly seen; as likewise they that are painted on the highest part of the eye shall be distinctly seen by turning the eye down, and are for that reason esteemed lowest. For we have shewn that to the immediate objects of sight, considered in themselves, he would not attribute the terms high and low. It must therefore be on account of some circumstances which are observed to attend them. And these, it is plain, are the actions of turning the eye up and down, which suggest a very obvious reason why the mind should denominate the objects of sight accordingly high or low. And, without this motion of the eye—this turning it up and down in order to discern different objects—doubtless *erect*, *inverse*, and other the like terms relating to the position of tangible objects, would never have been transferred, or in any degree apprehended to belong to the ideas of sight, the mere act of seeing including nothing in it to that purpose; whereas the different situations of the eye naturally direct the mind to make a suitable judgment of the situation of objects intromitted by it[1].

99. Farther, when he has by experience learned the connexion there is between the several ideas of sight and touch, he will be able, by the perception he has of the situation of visible things in respect of one another, to make a sudden and true estimate of the situation of outward, tangible things corresponding to them. And thus

[1] This briefly is Berkeley's solution of 'the knot about inverted images,' which long puzzled men of science.

it is he shall perceive[1] by sight the situation of external[2] objects, which do not properly fall under that sense.

100. I know we are very prone to think that, if just made to see, we should judge of the situation of visible things as we do now. But, we are also as prone to think that, at first sight, we should in the same way apprehend the distance and magnitude of objects, as we do now; which hath been shewn to be a false and groundless persuasion. And, for the like reasons, the same censure may be passed on the positive assurance that most men, before they have thought sufficiently of the matter, might have of their being able to determine by the eye, at first view, whether objects were erect or inverse.

101. It will perhaps be objected to our opinion, that a man, for instance, being thought erect when his feet are next the earth, and inverted when his head is next the earth, it doth hence follow that, by the mere act of vision, without any experience or altering the situation of the eye, we should have determined whether he were erect or inverted. For both the earth itself, and the limbs of the man who stands thereon, being equally perceived by sight, one cannot choose seeing what part of the man is nearest the earth, and what part farthest from it, *i.e.* whether he be erect or inverted.

102. To which I answer, the ideas which constitute the tangible earth and man are entirely different from those which constitute the visible earth and man. Nor was it possible, by virtue of the visive faculty alone, without superadding any experience of touch, or altering the position of the eye, ever to have known, or so much as suspected, there had been any relation or connexion between them. Hence, a man at first view would not denominate anything he saw, *earth*, or *head*, or *foot*; and consequently, he could not tell, by the mere act of vision, whether the head or feet were nearest the earth. Nor, indeed, would we have thereby any thought of earth or man, erect or inverse, at all—which will be made yet

[1] i. e. perceive *mediately*—visible objects, *per se*, having no tactual situation. Pure vision, he would say, has nothing to do with 'high' and 'low,' 'great' and 'inverted,' in the real or tactual meaning of those terms.

[2] i. e. tangible.

more evident, if we nicely observe, and make a particular comparison between, the ideas of both senses.

103. That which I see is only variety of light and colours. That which I feel is hard or soft, hot or cold, rough or smooth. What similitude, what connexion, have those ideas with these? Or, how is it possible that any one should see reason to give one and the same name[1] to combinations of ideas so very different, before he had experienced their co-existence? We do not find there is any necessary connexion betwixt this or that tangible quality, and any colour whatsoever. And we may sometimes perceive colours, where there is nothing to be felt. All which doth make it manifest that no man, at first receiving of his sight[2], would know there was any agreement between this or that particular object of his sight and any object of touch he had been already acquainted with. The colours therefore of the head would to him no more suggest the idea of head[3] than they would the idea of feet.

104. Farther, we have at large shewn (vid. sect. 63 and 64) there is no discoverable necessary connexion between any given visible magnitude and any one particular tangible magnitude; but that it is entirely the result of custom and experience, and depends on foreign and accidental circumstances, that we can, by the perception of visible extension, inform ourselves what may be the extension of any tangible object connected with it. Hence, it is certain, that neither the visible magnitude of head or foot would bring along with them into the mind, at first opening of the eyes, the respective tangible magnitudes of those parts.

105. By the foregoing section, it is plain the visible figure of any part of the body hath no necessary connexion with the tangible figure thereof, so as at first sight to suggest it to the mind. For, figure is the termination of magnitude. Whence it follows that no visible magnitude having in its own nature an aptness to suggest any one particular tangible magnitude, so neither can any visible figure be inseparably connected with its corresponding tangible figure, so as of itself, and in a way prior to experience, it might suggest it

[1] e. g. 'extension,' which, according to Berkeley, is an equivocal term, common (in its different meanings) to *visibilia* and *tangibilia*. Cf. sect. 139, 140.

[2] Cf. sect. 93, 106, 110, 128.

[3] i. e. real or tangible head.

to the understanding. This will be farther evident, if we consider that what seems smooth and round to the touch may to sight, if viewed through a microscope, seem quite otherwise.

106. From all which, laid together and duly considered, we may clearly deduce this inference:—In the first act of vision, no idea entering by the eye would have a perceivable connexion with the ideas to which the names earth, man, head, foot, &c. were annexed in the understanding of a person blind from his birth; so as in any sort to introduce them into his mind, or make themselves be called by the same names, and reputed the same things with them, as afterwards they come to be.

107. There doth, nevertheless, remain one difficulty, which to some may seem to press hard on our opinion, and deserve not to be passed over. For, though it be granted that neither the colour, size, nor figure of the visible feet have any necessary connexion with the ideas that compose the tangible feet, so as to bring them at first sight into my mind, or make me in danger of confounding them, before I had been used to and for some time experienced their connexion; yet thus much seems undeniable, namely, that the number of the visible feet being the same with that of the tangible feet, I may from hence, without any experience of sight, reasonably conclude that they represent or are connected with the feet rather than the head. I say, it seems the idea of two visible feet will sooner suggest to the mind the idea of two tangible feet than of one head —so that the blind man, upon first reception of the visive faculty, might know which were the feet or two, and which the head or one.

108. In order to get clear of this seeming difficulty, we need only observe that diversity of visible objects does not necessarily infer diversity of tangible objects corresponding to them. A picture painted with great variety of colours affects the touch in one uniform manner; it is therefore evident that I do not, by any necessary consecution, independent of experience, judge of the number of things tangible from the number of things visible. I should not therefore at first opening my eyes conclude that because I see two I shall feel two. How, therefore, can I, before experience teaches me, know that the visible legs, because

two, are connected with the tangible legs; or the visible head, because one, is connected with the tangible head? The truth is, the things I see are so very different and heterogeneous from the things I feel that the perception of the one would never have suggested the other to my thoughts, or enabled me to pass the least judgment thereon, until I had experienced their connexion [1].

109. But, for a fuller illustration of this matter, it ought to be considered, that number (however some may reckon it amongst the primary qualities [2]) is nothing fixed and settled, really existing in things themselves. It is entirely the creature of the mind, considering either a simple idea by itself, or any combination of simple ideas to which it gives one name, and so makes it pass for a unit. According as the mind variously combines its ideas, the unit varies; and as the unit, so the number, which is only a collection of units, doth also vary. We call a window one, a chimney one; and yet a house, in which there are many windows and many chimneys, has an equal right to be called one; and many houses go to the making of one city. In these and the like instances, it is evident the *unit* constantly relates to the particular draughts the mind makes of its ideas, to which it affixes names, and wherein it

[1] Cf. sect. 140, 143. In the *Gent. Mag.* (vol. XXII. p. 12), 'Anti-Berkeley' thus argues the case of one born blind. 'This man,' he adds, 'would, by being accustomed to feel one hand with the other, have perceived that the extremity of the hand was divided into fingers —that the extremities of these fingers were distinguished by certain hard, smooth surfaces, of a different texture from the rest of the fingers—and that each finger had certain joints or flexures. Now, if this man was restored to sight, and immediately viewed his hand before he touched it again, it is manifest that the divisions of the extremity of the hand into fingers would be visibly perceived. He would note too the small spaces at the extremity of each finger, which affected his sight differently from the rest of the fingers; upon moving his fingers he would see the joints. Though therefore, by means of this lately acquired sense of seeing, the object affected his mind in a new and different manner from what it did before, yet, as by *touch* he had acquired the knowledge of these several divisions, marks, and distinctions of the hand, and, as the new object of *sight* appeared to be divided, marked, and distinguished in a similar manner, I think he would certainly conclude, *before he touched his hand*, that the thing which he now saw was *the same* which he had felt before and called his hand.'

[2] Locke, *Essay*, II. 8, 16. Aristotle regards number as a Common Sensible.—*De Anima*, II. 6, III. 1.

includes more or less, as best suits its own ends and purposes. Whatever therefore the mind considers as one, that is an unit. Every combination of ideas is considered as one thing by the mind, and in token thereof is marked by one name. Now, this naming and combining together of ideas is perfectly arbitrary, and done by the mind in such sort as experience shews it to be most convenient—without which our ideas had never been collected into such sundry distinct combinations as they now are.

110. Hence, it follows that a man born blind, and afterwards, when grown up, made to see, would not, in the first act of vision, parcel out the ideas of sight into the same distinct collections that others do who have experienced which do regularly co-exist and are proper to be bundled up together under one name. He would not, for example, make into one complex idea, and thereby esteem and unite all those particular ideas which constitute the visible head or foot. For, there can be no reason assigned why he should do so, barely upon his seeing a man stand upright before him. There crowd into his mind the ideas which compose the visible man, in company with all the other ideas of sight perceived at the same time. But, all these ideas offered at once to his view he would not distribute into sundry distinct combinations, till such time as, by observing the motion of the parts of the man and other experiences, he comes to know which are to be separated and which to be collected together [1].

111. From what hath been premised, it is plain the objects of sight and touch make, if I may so say, two sets of ideas, which are widely different from each other. To objects of either kind we indifferently attribute the terms high and low, right and left, and such like, denoting the position or situation of things; but then we must well observe that the position of any object is determined with respect only to objects of the same sense. We say any object of touch is high or low, according as it is more or less distant from the tangible earth: and in like manner we

[1] 'If the visible appearance of two shillings had been found connected from the beginning with the tangible idea of one shilling, that appearance would as naturally and readily have signified the unity of the (tangible) object as it now signifies its duplicity.' Reid, *Inquiry*, VI. 11.

denominate any object of sight high or low, in proportion as it is more or less distant from the visible earth. But, to define the situation of visible things with relation to the distance they bear from any tangible thing, or *vice versa*, this were absurd and perfectly unintelligible. For all visible things are equally in the mind, and take up no part of the external space; and consequently are equidistant from any tangible thing which exists without the mind [1].

112. Or rather, to speak truly, the proper objects of sight are at no distance, neither near nor far from any tangible thing. For, if we inquire narrowly into the matter, we shall find that those things only are compared together in respect of distance which exist after the same manner, or appertain unto the same sense. For, by the distance between any two points, nothing more is meant than the number of intermediate points. If the given points are visible, the distance between them is marked out by the number of the interjacent visible points; if they are tangible, the distance between them is a line consisting of tangible points; but, if they are one tangible and the other visible, the distance between them doth neither consist of points perceivable by sight nor by touch, *i.e.* it is utterly inconceivable [2]. This, perhaps, will not find an easy admission into all men's understanding. However, I should gladly be informed whether it be not true, by any one who will be at the pains to reflect a little, and apply it home to his thoughts.

113. The not observing what has been delivered in the two last sections, seems to have occasioned no small part of the difficulty that occurs in the business of direct appearances. The head, which is painted nearest the earth, seems to be farthest from it; and on the other hand, the feet, which are painted farthest from the earth, are thought nearest to it. Herein lies the difficulty, which vanishes if we express the thing more clearly and free from ambiguity, thus:—How comes it that, to the eye, the visible head, which is nearest the tangible earth, seems farthest from the

[1] Here again note Berkeley's inconvenient reticence of his full theory of matter, as dependent on percipient life for its reality. Tangible things are meantime granted to be real 'without mind.' Cf. *Principles*, sect. 43, 44. 'Without the mind' —in contrast to sensuous phenomenon only.

[2] Cf. sect. 131.

earth; and the visible feet, which are farthest from the tangible earth, seem nearest the earth? The question being thus proposed, who sees not the difficulty is founded on a supposition that the eye or visive faculty, or rather the soul by means thereof, should judge of the situation of visible objects with reference to their distance from the tangible earth? Whereas, it is evident the tangible earth is not perceived by sight. And it hath been shewn, in the two last preceding sections, that the location of visible objects is determined only by the distance they bear from one another, and that it is nonsense to talk of distance, far or near, between a visible and tangible thing.

114. If we confine our thoughts to the proper objects of sight, the whole is plain and easy. The head is painted farthest from, and the feet nearest to, the visible earth; and so they appear to be. What is there strange or unaccountable in this? Let us suppose the pictures in the fund of the eye to be the immediate objects of sight[1]. The consequence is that things should appear in the same posture they are painted in; and is it not so? The head which is seen seems farthest from the earth which is seen; and the feet which are seen seem nearest to the earth which is seen. And just so they are painted.

115. But, say you, the picture of the man is inverted, and yet the appearance is erect. I ask, what mean you by the picture of the man, or, which is the same thing, the visible man's being inverted? You tell me it is inverted, because the heels are uppermost and the head undermost? Explain me this. You say that by the head's being undermost, you mean that it is nearest to the earth; and, by the heels being uppermost, that they are farthest from the earth. I ask again, what earth you mean? You cannot mean the earth that is painted on the eye or the visible earth—for the picture of the head is farthest from the picture of the earth, and the picture of the feet nearest to the picture of the earth; and accordingly the visible head is farthest from the visible earth, and the visible feet nearest to it. It remains, therefore, that you mean the tangible earth; and so determine the situation of visible things with respect to tangible things—contrary to what hath been demonstrated in sect. 111 and 112. The two

[1] Sect. 2, 88, 116, 118.

distinct provinces of sight and touch should be considered apart, and as though their objects had no intercourse, no manner of relation to one another, in point of distance or position[1].

116. Farther, what greatly contributes to make us mistake in this matter is that, when we think of the pictures in the fund of the eye, we imagine ourselves looking on the fund of another's eye, or another looking on the fund of our own eye, and beholding the pictures painted thereon. Suppose two eyes, *A* and *B*. *A* from some distance looking on the pictures in *B* sees them inverted, and for that reason concludes they are inverted in *B*. But this is wrong. There are projected in little on the bottom of *A* the images of the pictures of, suppose, man, earth, &c., which are painted on *B*. And, besides these, the eye *B* itself, and the objects which environ it, together with another earth, are projected in a larger size on *A*. Now, by the eye *A* these larger images are deemed the true objects, and the lesser only pictures in miniature. And it is with respect to those greater images that it determines the situation of the smaller images; so that, comparing the little man with the great earth, *A* judges him inverted, or that the feet are farthest from and the head nearest to the great earth. Whereas, if *A* compare the little man with the little earth, then he will appear erect, *i. e.* his head shall seem farthest from and his feet nearest to the little earth. But we must consider that *B* does not see two earths as *A* does. It sees only what is represented by the little pictures in *A*, and consequently shall judge the man erect. For, in truth, the man in *B* is not inverted, for there the feet are next the earth; but it is the representation of it in *A* which is inverted, for there the head of the representation of the picture of the man in *B* is next the earth, and the feet farthest from the earth—meaning the earth which is without the representation of the pictures in *B*. For, if you take the little images of the pictures in *B*, and consider them by themselves, and with respect only to one another, they are all erect and in their natural posture.

[1] In short, we *see* only *quantities of colour*—the real or tactual distance, size, shape, locality, up and down, right and left, &c., being gradually associated with the various visible modifications of colour.

117. Farther, there lies a mistake in our imagining that the pictures of external[1] objects are painted on the bottom of the eye. It has been shewn there is no resemblance between the ideas of sight and things tangible. It hath likewise been demonstrated[2], that the proper objects of sight do not exist without the mind. Whence it clearly follows that the pictures painted on the bottom of the eye are not the pictures of external[1] objects. Let any one consult his own thoughts, and then tell me, what affinity, what likeness, there is between that certain variety and disposition of colours which constitute the visible man, or picture of a man, and that other combination of far different ideas, sensible by touch, which compose the tangible man. But, if this be the case, how come they to be accounted pictures or images, since that supposes them to copy or represent some originals or other?

118. To which I answer—In the forementioned instance, the eye *A* takes the little images, included within the representation of the other eye *B*, to be pictures or copies, whereof the archetypes are not things existing without[3], but the larger pictures[4] projected on its own fund; and which by *A* are not thought pictures, but the originals or true things themselves. Though if we suppose a third eye *C*, from a due distance, to behold the fund of *A*, then indeed the things projected thereon shall, to *C*, seem pictures or images, in the same sense that those projected on *B* do to *A*.

119. Rightly to conceive the business in hand, we must carefully distinguish between the ideas of sight and touch, between the visible and tangible eye; for certainly on the tangible eye nothing either is or seems to be painted. Again, the visible eye, as well as all other visible objects, hath been shewn to exist only in the mind[5]; which, perceiving its own ideas, and comparing them together, does call some pictures in respect to others. What hath been said, being rightly comprehended and laid together, does, I think, afford a full and genuine explication of the erect appearance of objects—which phenomenon, I must

[1] i.e. tangible.
[2] Sect. 41–44.
[3] i.e. tangible things.
[4] i.e. visible.
[5] Cf. sect. 41–44. The 'eyes'—visible and tangible—are themselves objects of sense.

confess, I do not see how it can be explained by any theories of vision hitherto made public.

120. In treating of these things, the use of language is apt to occasion some obscurity and confusion, and create in us wrong ideas. For, language being accommodated to the common notions and prejudices of men, it is scarce possible to deliver the naked and precise truth, without great circumlocution, impropriety, and (to an unwary reader) seeming contradictions. I do, therefore, once for all, desire whoever shall think it worth his while to understand what I have written concerning vision, that he would not stick in this or that phrase or manner of expression, but candidly collect my meaning from the whole sum and tenor of my discourse, and, laying aside the words[1] as much as possible, consider the bare notions themselves, and then judge whether they are agreeable to truth and his own experience or no.

121. We have shewn the way wherein the mind, by mediation of visible ideas[2], doth perceive or apprehend the distance, magnitude, and situation of tangible objects[3]. I come now to inquire more particularly concerning the difference between the ideas of sight and touch which are called by the same names, and see whether there be any idea common to both senses[4]. From what we have at large set forth and demonstrated in the foregoing parts of this treatise, it is plain there is no one self-same numerical extension, perceived both by sight and touch; but that the particular figures and extensions perceived by sight, however they may be called by the same names, and reputed the same things with those perceived by touch, are nevertheless different, and have an existence very distinct and

[1] Cf. *Principles*, Introduction, sect. 21–25.

[2] 'Visible ideas'—including sensations muscular and locomotive, *felt* in the organ of vision. Sect. 16, 27, 57.

[3] i.e. objects which, in this tentative *Essay*, are granted, for argument's sake, to be external, or independent of percipient mind.

[4] i.e. to inquire whether there are, in this instance, Common Sensibles; and, in particular, whether an *extension* of the same kind at least, if not numerically the same, is presented in each. The Kantian theory of an *a priori* intuition of space, the common condition of tactual and visual experience, because implied in sense-experience as such, is not conceived by Berkeley. Cf. *Theory of Vision Vindicated*, sect. 15.

separate from them. So that the question is not now concerning the same numerical ideas, but whether there be any one and the same sort or species of ideas equally perceivable to both senses? or, in other words, whether extension, figure, and motion perceived by sight, are not specifically distinct from extension, figure, and motion perceived by touch?

122. But, before I come more particularly to discuss this matter, I find it proper to take into my thoughts extension in abstract[1]. For of this there is much talk; and I am apt to think that when men speak of extension as being an idea common to two senses, it is with a secret supposition that we can single out extension from all other tangible and visible qualities, and form thereof an abstract idea, which idea they will have common both to sight and touch. We are therefore to understand by extension in abstract, an idea[2] of extension—for instance, a line or surface entirely stripped of all other sensible qualities and circumstances that might determine it to any particular existence; it is neither black, nor white, nor red, nor hath it any colour at all, or any tangible quality whatsoever, and consequently it is of no finite determinate magnitude[3]; for that which bounds or distinguishes one extension from another is some quality or circumstance wherein they disagree.

123. Now, I do not find that I can perceive, imagine, or anywise frame in my mind such an abstract idea as is here spoken of. A line or surface which is neither black, nor white, nor blue, nor yellow, &c.; nor long, nor short, nor rough, nor smooth, nor square, nor round, &c. is perfectly incomprehensible. This I am sure of as to myself; how far the faculties of other men may reach they best can tell.

124. It is commonly said that the object of geometry is

[1] In the following reasoning against abstract, as distinguished from concrete or sense presented (visible or tangible) extension, Berkeley urges some of his favourite objections to 'abstract ideas,' fully unfolded in his *Principles*, Introduction, sect. 6-20.—See also *Alciphron*, VII. 5-8.—*Defence of Free Thinking in Mathematics*, sect. 45-48.

[2] Berkeley's *ideas* are concrete or particular—immediate data of sense or imagination.

[3] i. e. it cannot be individualized, either as a perceived or an imagined object.

abstract extension. But geometry contemplates figures: now, figure is the termination of magnitude[1]; but we have shewn that extension in abstract hath no finite determinate magnitude; whence it clearly follows that it can have no figure, and consequently is not the object of geometry. It is indeed a tenet, as well of the modern as the ancient philosophers, that all general truths are concerning universal abstract ideas; without which, we are told, there could be no science, no demonstration of any general proposition in geometry. But it were no hard matter, did I think it necessary to my present purpose, to shew that propositions and demonstrations in geometry might be universal, though they who make them never think of abstract general ideas of triangles or circles.

125. After reiterated efforts and pangs of thought[2] to apprehend the general idea of a triangle[3], I have found it altogether incomprehensible. And surely, if any one were able to let that idea into my mind, it must be the author[4] of the *Essay concerning Human Understanding:* he, who has so far distinguished himself from the generality of writers, by the clearness and significancy of what he says. Let us therefore see how this celebrated author[5] describes the general or [which is the same thing, the[6]] abstract idea of a triangle. 'It must be,' says he, 'neither oblique nor rectangle, neither equilateral, equicrural, nor scalenum; but all and none of these at once. In effect it is somewhat imperfect that cannot exist; an idea, wherein some parts of several different and inconsistent ideas are put together.' (*Essay on Human Understanding*, B. iv. ch. 7. s. 9.) This is the idea which he thinks needful for the enlargement of knowledge, which is the subject of mathematical demonstration, and without which we could never come to know any general proposi-

[1] Sect. 105.

[2] 'Endeavours' in first edition.

[3] i.e. a mental image of an abstraction, an impossible image, in which the extension and comprehension of the notion must be adequately pictured.

[4] 'deservedly admired author,' in the first edition.

[5] 'this celebrated author,'—'that great man' in second edition. In assailing Locke's 'abstract idea,' he discharges the meaning which Locke intended by the term, and then demolishes his own figment.

[6] Omitted in the author's last edition.

tion concerning triangles. [Sure I am, if this be the case, it is impossible for me to attain to know even the first elements of geometry: since I have not the faculty to frame in my mind such an idea as is here described[1].] That author acknowledges it doth 'require some pains and skill to form this general idea of a triangle.' (*Ibid.*) But, had he called to mind what he says in another place, to wit, 'that ideas of mixed modes wherein any inconsistent ideas are put together, cannot so much as exist in the mind, *i.e.* be conceived,' (vid. B. iii. ch. 10. s. 33, *ibid.*)—I say, had this occurred to his thoughts, it is not improbable he would have owned it above all the pains and skill he was master of, to form the above-mentioned idea of a triangle, which is made up of manifest staring contradictions. That a man [of such a clear understanding[2]], who thought so much and so well, and laid so great a stress on clear and determinate ideas, should nevertheless talk at this rate, seems very surprising. But the wonder will lessen, if it be considered that the source whence this opinion [of abstract figures and extension[3]] flows is the prolific womb which has brought forth innumerable errors and difficulties, in all parts of philosophy, and in all the sciences. But this matter, taken in its full extent, were a subject too vast and comprehensive to be insisted on in this place[4]. [I shall only observe that your metaphysicians and men of speculation seem to have faculties distinct from those of ordinary men, when they talk of general or abstracted triangles and circles, &c., and so peremptorily declare them to be the subject of all the eternal, immutable, universal truths in geometry[5].] And so much for extension in abstract.

126. Some, perhaps, may think pure space, vacuum, or trine dimension, to be equally the object of sight and touch[6]. But, though we have a very great propension to think the ideas of outness and space to be the immediate object of sight, yet, if I mistake not, in the foregoing parts of this *Essay*, that hath been clearly de-

[1] Omitted in last edition.
[2] Omitted in last edition.
[3] Omitted in last edition.
[4] See *Principles*, passim.
[5] Omitted in author's last edition.
[6] He probably has Locke in his eye.

monstrated to be a mere delusion, arising from the quick and sudden suggestion of fancy, which so closely connects the idea of distance with those of sight, that we are apt to think it is itself a proper and immediate object of that sense, till reason corrects the mistake[1].

127. It having been shewn that there are no abstract ideas of figure, and that it is impossible for us, by any precision of thought, to frame an idea of extension separate from all other visible and tangible qualities, which shall be common both to sight and touch—the question now remaining is[2], whether the particular extensions, figures, and motions perceived by sight, be of the same kind with the particular extensions, figures, and motions perceived by touch? In answer to which I shall venture to lay down the following proposition:—*The extension, figures, and motions perceived by sight are specifically distinct from the ideas of touch, called by the same names; nor is there any such thing as one idea, or kind of idea, common*[3] *to both senses.* This proposition may, without much difficulty, be collected from what hath been said in several places of this Essay. But, because it seems so remote from, and contrary to the received notions and settled opinion of mankind, I shall attempt to demonstrate it more particularly and at large by the following arguments:—

128. [*First*[4],] When, upon perception of an idea, I range it under this or that sort, it is because it is perceived after the same manner, or because it has a likeness or conformity with, or affects me in the same way as the ideas of the sort I rank it under. In short, it must not be entirely new, but have something in it old and already perceived by me. It must, I say, have so much, at least,

[1] On Berkeley's theory, space without relation to bodies (i.e. insensible or abstract space) would not be extended, as not having parts; inasmuch as parts can be assigned to it only with relation to bodies. Berkeley does not distinguish space from sensible extension. Cf. Reid's *Works*, p. 126, note—in which Sir W. Hamilton suggests that one may have an *a priori* conception of pure space, and *also* an *a posteriori* perception of finite, concrete space.

[2] Sect. 121. Cf. *New Theory of Vision Vindicated*, sect. 15.

[3] i.e. there are no Common Sensibles: from which it follows that we can reason from the one sense to the other only by founding on the constant connexion of their respective phenomena, under a natural yet (for us) contingent law. Cf. *New Theory of Vision Vindicated*, sect. 27, 28.

[4] Omitted in last edition.

in common with the ideas I have before known and named, as to make me give it the same name with them. But, it has been, if I mistake not, clearly made out[1] that a man born blind would not, at first reception of his sight, think the things he saw were of the same nature with the objects of touch, or had anything in common with them; but that they were a new set of ideas, perceived in a new manner, and entirely different from all he had ever perceived before. So that he would not call them by the same name, nor repute them to be of the same sort, with anything he had hitherto known. [And surely the judgment of such an unprejudiced person is more to be relied on in this case than the sentiments of the generality of men; who, in this as in almost everything else, suffer themselves to be guided by custom, and the erroneous suggestions of prejudice, rather than reason and sedate reflection[2].]

129. *Secondly*, Light and colours are allowed by all to constitute a sort or species entirely different from the ideas of touch; nor will any man, I presume, say they can make themselves perceived by that sense. But there is no other immediate object of sight besides light and colours[3]. It is therefore a direct consequence, that there is no idea common to both senses.

130. It is a prevailing opinion, even amongst those who have thought and writ most accurately concerning our ideas, and the ways whereby they enter into the understanding, that something more is perceived by sight than barely light and colours with their variations. [The excellent[4]] Mr. Locke termeth sight 'the most comprehensive of all our senses, conveying to our minds the ideas of light and colours, which are peculiar only to that sense; and also the far different ideas of space, figure, and motion.' (*Essay on Human Understanding*, B. iii. ch. 9. s. 9.) Space or distance[5], we have shewn, is no otherwise the

[1] Cf. sect. 93, 103, 106, 110.

[2] Omitted in last edition.

[3] Cf. sect. 43, 103, &c. A plurality of co-existent *minima* of coloured points constitutes Berkeley's visible extension; while a plurality of successively experienced *minima* of resistant points constitutes his tactual extension. Whether we can perceive visible extension without experience of muscular movement, at least in the eye, he does not here say.

[4] Omitted in last edition.

[5] Real distance belongs originally, according to the *Essay*, to our tactual experience only—in the

object of sight than of hearing. (Vid. sect. 46.) And, as for figure and extension, I leave it to any one that shall calmly attend to his own clear and distinct ideas to decide whether he has any idea intromitted immediately and properly by sight save only light and colours: or, whether it be possible for him to frame in his mind a distinct abstract idea of visible extension, or figure, exclusive of all colour; and, on the other hand, whether he can conceive colour without visible extension? For my own part, I must confess, I am not able to attain so great a nicety of abstraction. I know very well that, in a strict sense, I see nothing but light and colours, with their several shades and variations. He who beside these doth also perceive by sight ideas far different and distinct from them, hath that faculty in a degree more perfect and comprehensive than I can pretend to. It must be owned, indeed, that, by the mediation of light and colours, other far different ideas are suggested to my mind. But so they are by hearing[1]. But then, upon this score, I see no reason why the sight should be thought more comprehensive than the hearing, which, beside sounds which are peculiar to that sense, doth, by their mediation, suggest not only space, figure, and motion, but also all other ideas whatsoever that can be signified by words.

131. *Thirdly*, It is, I think, an axiom universally received, that 'quantities of the same kind may be added together and make one entire sum.' Mathematicians add lines together; but they do not add a line to a solid, or conceive it as making one sum with a surface. These three kinds of quantity being thought incapable of any such mutual addition, and consequently of being compared together in the several ways of proportion, are by them for that reason esteemed entirely disparate and heterogeneous. Now let any one try in his thoughts to add a visible line or surface to a tangible line or surface, so as to conceive them making one continued sum or whole. He that can do this may think them homogeneous; but he that cannot must, by the foregoing axiom, think them heterogeneous. [I acknowledge myself to be of the latter sort[2].] A blue and a red line I can conceive added together into one sum and

wide meaning of touch, which includes muscular and locomotive perceptions, as well as the simple perception of contact.

[1] Added in second edition.

[2] Omitted in last edition.

making one continued line; but, to make, in my thoughts, one continued line of a visible and tangible line added together, is, I find, a task far more difficult, and even insurmountable—and I leave it to the reflection and experience of every particular person to determine for himself.

132. A farther confirmation of our tenet may be drawn from the solution of Mr. Molyneux's problem, published by Mr. Locke in his *Essay*[1]: which I shall set down as it there lies, together with Mr. Locke's opinion of it:—'Suppose a man born blind, and now adult, and taught by his touch to distinguish between a cube and a sphere of the same metal, and nighly of the same bigness, so as to tell when he felt one and the other, which is the cube, and which the sphere. Suppose then the cube and sphere placed on a table, and the blind man made to see: Quære, Whether by his sight, before he touched them, he could now distinguish, and tell, which is the globe, which the cube. To which the acute and judicious proposer answers: Not. For, though he has obtained the experience of how a globe, how a cube affects his touch; yet he has not yet attained the experience, that what affects his touch so or so must affect his sight so or so: or that a protuberant angle in the cube, that pressed his hand unequally, shall appear to his eye as it doth in the cube. I agree with this thinking gentleman, whom I am proud to call my friend, in his answer to this his problem; and am of opinion that the blind man, at first sight, would not be able with certainty to say, which was the globe, which the cube, whilst he only saw them.' (*Essay on Human Understanding*, B. ii. ch. 9. s. 8.)

133. Now, if a square surface perceived by touch be of the same sort with a square surface perceived by sight, it is certain the blind man here mentioned might know a square surface as soon as he saw it. It is no more but introducing into his mind, by a new inlet, an idea he has been already well acquainted with. Since therefore he is supposed to have known by his touch that a cube is a body

[1] See also Locke's 'Correspondence' with Molyneux, in Locke's *Works*, vol. IX. p. 34.—Leibniz, *Nouveaux Essais*, Liv. II. ch. 9, who, so far granting the fact, disputes the heterogeneity.—Smith's *Optics.—Remarks*, §§ 161–170.—Hamilton's Reid, p. 137, note, and *Lect. Metaph.* II. p. 176.

terminated by square surfaces; and that a sphere is not terminated by square surfaces—upon the supposition that a visible and tangible square differ only *in numero*, it follows that he might know, by the unerring mark of the square surfaces, which was the cube, and which not, while he only saw them. We must therefore allow, either that visible extension and figures are specifically distinct from tangible extension and figures, or else, that the solution of this problem, given by those two [very[1]] thoughtful and ingenious men, is wrong.

134. Much more might be laid together in proof of the proposition I have advanced. But, what has been said is, if I mistake not, sufficient to convince any one that shall yield a reasonable attention. And, as for those that will not be at the pains of a little thought, no multiplication of words will ever suffice to make them understand the truth, or rightly conceive my meaning[2].

135. I cannot let go the above-mentioned problem without some reflection on it. It hath been made evident that a man blind from his birth would not, at first sight, denominate anything he saw, by the names he had been used to appropriate to ideas of touch. (Vid. sect. 106.) Cube, sphere, table are words he has known applied to things perceivable by touch, but to things perfectly intangible he never knew them applied. Those words, in their wonted application, always marked out to his mind bodies or solid things which were perceived by the resistance they gave. But there is no solidity, no resistance or protrusion, perceived by sight. In short, the ideas of sight are all new perceptions, to which there be no names annexed in his mind; he cannot therefore understand what is said to him concerning them. And, to ask of the two bodies he saw placed on the table, which was the sphere, which the cube, were to him a question downright bantering and unintelligible; nothing he sees being able to suggest to his thoughts the idea of body, distance, or, in general, of anything he had already known.

136. It is a mistake to think the same[3] thing affects both sight and touch. If the same angle or square which is the

[1] Omitted in last edition.

[2] Cf. *Theory of Vision Vindicated*, sect. 70.

[3] Cf. sect. 49, 146, &c. Here 'same' includes 'similar.'

object of touch be also the object of vision, what should hinder the blind man, at first sight, from knowing it? For, though the manner wherein it affects the sight be different from that wherein it affected his touch, yet, there being, beside this manner or circumstance, which is new and unknown, the angle or figure, which is old and known, he cannot choose but discern it.

137. Visible figure and extension having been demonstrated to be of a nature entirely different and heterogeneous from tangible figure and extension, it remains that we inquire concerning motion. Now, that visible motion is not of the same sort with tangible motion seems to need no farther proof; it being an evident corollary from what we have shewn concerning the difference there is betwixt visible and tangible extension. But, for a more full and express proof hereof, we need only observe that one who had not yet experienced vision would not at first sight know motion [1]. Whence it clearly follows that motion perceivable by sight is of a sort distinct from motion perceivable by touch. The antecedent I prove thus—By touch he could not perceive any motion but what was up or down, to the right or left, nearer or farther from him; besides these, and their several varieties or complications, it is impossible he should have any idea of motion. He would not therefore think anything to be motion, or give the name motion to any idea, which he could not range under some or other of those particular kinds thereof. But, from sect. 95, it is plain that, by the mere act of vision, he could not know motion upwards or downwards, to the right or left, or in any other possible direction. From which I conclude, he would not know motion at all at first sight. As for the idea of motion in abstract, I shall not waste paper about it, but leave it to my reader to make the best he can of it. To me it is perfectly unintelligible [2].

138. The consideration of motion may furnish a new field for inquiry [3]. But, since the manner wherein the

[1] i. e. visible and tangible motions being absolutely heterogeneous, and the former, *at man's point of view*, only contingent signs of the latter, we should not, at first sight, be able to interpret the visual signs of tactual phenomena.

[2] Cf. sect. 122–125.

[3] Cf. *Principles*, sect. 111–116; also *Analyst*, query 12. On Berkeley's system space in its three dimensions is unrealisable without experience of motion.

mind apprehends by sight the motion of tangible objects, with the various degrees thereof, may be easily collected from what has been said concerning the manner wherein that sense doth suggest their various distances, magnitudes, and situations, I shall not enlarge any farther on this subject, but proceed to inquire what may be alleged, with greatest appearance of reason, against the proposition we have demonstrated to be true; for, where there is so much prejudice to be encountered, a bare and naked demonstration of the truth will scarce suffice. We must also satisfy the scruples that men may start in favour of their preconceived notions, shew whence the mistake arises, how it came to spread, and carefully disclose and root out those false persuasions that an early prejudice might have implanted in the mind.

139. *First*, therefore, it will be demanded how visible extension and figures come to be called by the same name with tangible extension and figures, if they are not of the same kind with them? It must be something more than humour or accident that could occasion a custom so constant and universal as this, which has obtained in all ages and nations of the world, and amongst all ranks of men, the learned as well as the illiterate.

140. To which I answer, we can no more argue a visible and tangible square to be of the same species, from their being called by the same name, than we can that a tangible square, and the monosyllable consisting of six letters whereby it is marked, are of the same species, because they are both called by the same name. It is customary to call written words, and the things they signify, by the same name: for, words not being regarded in their own nature, or otherwise than as they are marks of things, it had been superfluous, and beside the design of language, to have given them names distinct from those of the things marked by them. The same reason holds here also. Visible figures are the marks of tangible figures; and, from sect. 59, it is plain that in themselves they are little regarded, or upon any other score than for their connexion with tangible figures, which by nature they are ordained to signify. And, because this language of nature[1] does

[1] Here the term 'language of nature' makes its appearance, as applicable to the ideas or visual signs of tactual realities.

not vary in different ages or nations, hence it is that in all times and places visible figures are called by the same names as the respective tangible figures suggested by them; and not because they are alike, or of the same sort with them.

141. But, say you, surely a tangible square is liker to a visible square than to a visible circle: it has four angles, and as many sides; so also has the visible square—but the visible circle has no such thing, being bounded by one uniform curve, without right lines or angles, which makes it unfit to represent the tangible square, but very fit to represent the tangible circle. Whence it clearly follows, that visible figures are patterns of, or of the same species with, the respective tangible figures represented by them; that they are like unto them, and of their own nature fitted to represent them, as being of the same sort; and that they are in no respect arbitrary signs, as words.

142. I answer, it must be acknowledged the visible square is fitter than the visible circle to represent the tangible square, but then it is not because it is liker, or more of a species with it; but, because the visible square contains in it several distinct parts, whereby to mark the several distinct corresponding parts of a tangible square, whereas the visible circle doth not. The square perceived by touch hath four distinct equal sides, so also hath it four distinct equal angles. It is therefore necessary that the visible figure which shall be most proper to mark it contain four distinct equal parts, corresponding to the four sides of the tangible square; as likewise four other distinct and equal parts, whereby to denote the four equal angles of the tangible square. And accordingly we see the visible figures contain in them distinct visible parts, answering to the distinct tangible parts of the figures signified or suggested by them.

143. But, it will not hence follow that any visible figure is like unto or of the same species with its corresponding tangible figure—unless it be also shewn that not only the number, but also the kind of the parts be the same in both. To illustrate this, I observe that visible figures represent tangible figures much after the same manner that written words do sounds. Now, in this respect, words are not arbitrary; it not being indifferent what written word stands

for any sound. But, it is requisite that each word contain in it as many distinct characters as there are variations in the sound it stands for. Thus, the single letter *a* is proper to mark one simple uniform sound; and the word *adultery* is accommodated to represent the sound annexed to it—in the formation whereof there being eight different collisions or modifications of the air by the organs of speech, each of which produces a difference of sound, it was fit the word representing it should consist of as many distinct characters, thereby to mark each particular difference or part of the whole sound. And yet nobody, I presume, will say the single letter *a*, or the word *adultery*, are alike unto or of the same species with the respective sounds by them represented. It is indeed arbitrary that, in general, letters of any language represent sounds at all; but, when that is once agreed, it is not arbitrary what combination of letters shall represent this or that particular sound. I leave this with the reader to pursue, and apply it in his own thoughts.

144. It must be confessed that we are not so apt to confound other signs with the things signified, or to think them of the same species, as we are visible and tangible ideas. But, a little consideration will shew us how this may well be, without our supposing them of a like nature. These signs are constant and universal; their connexion with tangible ideas has been learnt at our first entrance into the world; and ever since, almost every moment of our lives, it has been occurring to our thoughts, and fastening and striking deeper on our minds. When we observe that signs are variable, and of human institution; when we remember there was a time they were not connected in our minds with those things they now so readily suggest, but that their signification was learned by the slow steps of experience: this preserves us from confounding them. But, when we find the same signs suggest the same things all over the world; when we know they are not of human institution, and cannot remember that we ever learned their signification, but think that at first sight they would have suggested to us the same things they do now: all this persuades us they are of the same species as the things respectively represented by them, and that it is by a natural resemblance they suggest them to our minds.

145. Add to this that whenever we make a nice survey

of any object, successively directing the optic axis to each point thereof, there are certain lines and figures, described by the motion of the head or eye, which, being in truth perceived by feeling[1], do nevertheless so mix themselves, as it were, with the ideas of sight that we can scarce think but they appertain to that sense. Again, the ideas of sight enter into the mind several at once, more distinct and unmingled than is usual in the other senses beside the touch. Sounds, for example, perceived at the same instant, are apt to coalesce, if I may so say, into one sound: but we can perceive, at the same time, great variety of visible objects, very separate and distinct from each other. Now, tangible[2] extension being made up of several distinct coexistent parts, we may hence gather another reason that may dispose us to imagine a likeness or analogy between the immediate objects of sight and touch. But nothing, certainly, does more contribute to blend and confound them together, than the strict and close connexion[3] they have with each other. We cannot open our eyes but the ideas of distance, bodies, and tangible figures are suggested by them. So swift, and sudden, and unperceived is the transit from visible to tangible ideas that we can scarce forbear thinking them equally the immediate object of vision.

146. The prejudice[4] which is grounded on these, and whatever other causes may be assigned thereof, sticks so fast on our understandings, that it is impossible, without obstinate striving and labour of the mind, to get entirely clear of it. But then the reluctancy we find in rejecting any opinion can be no argument of its truth, to whoever considers what has been already shewn with regard to the prejudices we entertain concerning the distance, magnitude, and situation of objects; prejudices so familiar to our minds, so confirmed and inveterate, as they will hardly give way to the clearest demonstration.

147. Upon the whole, I think we may fairly conclude[5]

[1] Cf. sect. 16, 27, 97.

[2] Is 'tangible' here used in its narrow meaning—excluding muscular and locomotive experience?

[3] i.e. as natural signs, divinely associated with their thus implied meanings.

[4] Cf. *New Theory of Vision Vindicated*, sect. 35.

[5] Berkeley, in this section, enunciates the principal conclusion in the *Essay*, which conclusion indeed forms his new theory of Vision.

that the proper objects of Vision constitute the Universal Language of Nature; whereby we are instructed how to regulate our actions, in order to attain those things that are necessary to the preservation and well-being of our bodies, as also to avoid whatever may be hurtful and destructive of them. It is by their information that we are principally guided in all the transactions and concerns of life. And the manner wherein they signify and mark out unto us the objects which are at a distance is the same with that of languages and signs of human appointment; which do not suggest the things signified by any likeness or identity of nature, but only by an habitual connexion that experience has made us to observe between them[1].

148. Suppose one who had always continued blind be told by his guide that after he has advanced so many steps he shall come to the brink of a precipice, or be stopped by a wall; must not this to him seem very admirable and surprising? He cannot conceive how it is possible for mortals to frame such predictions as these, which to him would seem as strange and unaccountable as prophecy does to others. Even they who are blessed with the visive faculty may (though familiarity make it less observed) find therein sufficient cause of admiration. The wonderful art and contrivance wherewith it is adjusted to those ends and purposes for which it was apparently

[1] A suggestion thus due to natural laws of association. The explanation of the fact that we apprehend, by those ideas or phenomena which are objects of sight, certain other ideas, which neither resemble them, nor efficiently cause them, nor are so caused by them, nor have any necessary connexion with them, comprehends, according to Berkeley, the whole Theory of Vision. 'The imagination of every thinking person,' remarks Adam Smith, 'will supply him with instances to prove that the ideas received by any one of the senses do readily excite such other ideas, either of the same sense or of any other, as have habitually been associated with them. So that if, on this account, we are to suppose, with a late ingenious writer, that the ideas of sight constitute a Visual Language, because they readily suggest the corresponding ideas of touch—as the terms of a language excite the ideas answering to them—I see not but we may, for the same reason, allow of a tangible, audible, gustatory, and olefactory language; though doubtless the Visual Language will be abundantly more copious than the rest.' Smith's *Optics.—Remarks*, p. 29.—And into this conception of a universal sense symbolism, Berkeley's theory of Vision ultimately rises.

designed; the vast extent, number, and variety of objects that are at once, with so much ease, and quickness, and pleasure, suggested by it—all these afford subject for much and pleasing speculation, and may, if anything, give us some glimmering analogous prænotion of things, that are placed beyond the certain discovery and comprehension of our present state[1].

149. I do not design to trouble myself much with drawing corollaries from the doctrine I have hitherto laid down. If it bears the test, others may, so far as they shall think convenient, employ their thoughts in extending it farther, and applying it to whatever purposes it may be subservient to. Only, I cannot forbear making some inquiry concerning the object of geometry, which the subject we have been upon does naturally lead one to. We have shewn there is no such idea as that of extension in abstract[2]; and that there are two kinds of sensible extension and figures, which are entirely distinct and heterogeneous from each other[3]. Now, it is natural to inquire which of these is the object of geometry[4].

150. Some things there are which, at first sight, incline one to think geometry conversant about visible extension. The constant use of the eyes, both in the practical and speculative parts of that science, doth very much induce us thereto. It would, without doubt, seem odd to a mathematician to go about to convince him the diagrams he saw upon paper were not the figures, or even the likeness of the figures, which make the subject of the demonstration—the contrary being held an unquestionable truth, not only by mathematicians, but also by those who apply themselves more particularly to the study of logic; I mean who consider the nature of science, certainty, and demonstration; it being by them assigned as one

[1] Cf. *Alciphron*, Dialogue IV. sect. 11–15.

[2] Sect. 122–125.

[3] Sect. 127–138.

[4] Some modern metaphysicians would say, that neither tangible nor visible extension is the object of geometry, but abstract extension; and others that space is a necessary implicate of sense-experience, rather than, *per se*, an object of any single sense. Cf. Kant's explanation of the origin of our mathematical knowledge, *Kritik der reinen Vernunft*. Elementarlehre, I.

reason of the extraordinary clearness and evidence of geometry, that in that science the reasonings are free from those inconveniences which attend the use of arbitrary signs, the very ideas themselves being copied out, and exposed to view upon paper. But, by the bye, how well this agrees with what they likewise assert of abstract ideas being the object of geometrical demonstration I leave to be considered.

151. To come to a resolution in this point, we need only observe what has been said in sect. 59, 60, 61, where it is shewn that visible extensions in themselves are little regarded, and have no settled determinate greatness, and that men measure altogether by the application of tangible extension to tangible extension. All which makes it evident that visible extension and figures are not the object of geometry.

152. It is therefore plain that visible figures are of the same use in geometry that words are. And the one may as well be accounted the object of that science as the other; neither of them being any otherwise concerned therein than as they represent or suggest to the mind the particular tangible figures connected with them. There is, indeed, this difference betwixt the signification of tangible figures by visible figures, and of ideas by words —that whereas the latter is variable and uncertain, depending altogether on the arbitrary appointment of men, the former is fixed, and immutably the same in all times and places. A visible square, for instance, suggests to the mind the same tangible figure in Europe that it doth in America. Hence it is, that the voice of nature, which speaks to our eyes, is not liable to that misinterpretation and ambiguity that languages of human contrivance are unavoidably subject to[1]. From which may, in some measure, be derived that peculiar evidence and clearness of geometrical demonstrations.

153. Though what has been said may suffice to shew what ought to be determined with relation to the object of geometry, I shall, nevertheless, for the fuller illustration thereof, take into my thoughts the case of an intelligence or unbodied spirit, which is supposed to see perfectly

[1] Cf. sect. 51–66, 144.

well, *i. e.* to have a clear perception of the proper and immediate objects of sight, but to have no sense of touch [1]. Whether there be any such being in nature or no, is beside my purpose to inquire ; it suffices, that the supposition contains no contradiction in it. Let us now examine what proficiency such a one may be able to make in geometry. Which speculation will lead us more clearly to see whether the ideas of sight can possibly be the object of that science.

154. *First*, then, it is certain the aforesaid intelligence could have no idea of a solid or quantity of three dimensions, which follows from its not having any idea of distance. We, indeed, are prone to think that we have by sight the ideas of space and solids ; which arises from our imagining that we do, strictly speaking, see distance, and some parts of an object at a greater distance than others ; which has been demonstrated to be the effect of the experience we have had what ideas of touch are connected with such and such ideas attending vision. But the intelligence here spoken of is supposed to have no experience of touch. He would not, therefore, judge as we do, nor have any idea of distance, outness, or profundity, nor consequently of space or body, either immediately or by suggestion. Whence it is plain he can have no notion of those parts of geometry which relate to the mensuration of solids, and their convex or concave surfaces, and contemplate the properties of lines generated by the section of a solid. The conceiving of any part whereof is beyond the reach of his faculties.

155. *Farther*, he cannot comprehend the manner wherein geometers describe a right line or circle ; the rule and compass, with their use, being things of which it is impossible he should have any notion. Nor is it an easier matter for him to conceive the placing of one plane or angle on another, in order to prove their equality ; since that supposes some idea of distance, or external space.

[1] This is a conjecture, not as to the probable ideas of one born blind, but as to the ideas of an 'unbodied' intelligence, whose *only* sense was that of seeing. See Reid's speculation (*Inquiry*, VI. 9) on the 'Geometry of Visibles,' and the mental experience of Idomenians, or imaginary beings supposed to have no ideas of the material world except those got by seeing.

All which makes it evident our pure intelligence could never attain to know so much as the first elements of plain geometry. And perhaps, upon a nice inquiry, it will be found he cannot even have an idea of plain figures any more than he can of solids; since some idea of distance is necessary to form the idea of a geometrical plane, as will appear to whoever shall reflect a little on it.

156. All that is properly perceived by the visive faculty amounts to no more than colours with their variations, and different proportions of light and shade—but the perpetual mutability and fleetingness of those immediate objects of sight render them incapable of being managed after the manner of geometrical figures; nor is it in any degree useful that they should. It is true there be divers of them perceived at once; and more of some, and less of others: but accurately to compute their magnitude, and assign precise determinate proportions between things so variable and inconstant, if we suppose it possible to be done, must yet be a very trifling and insignificant labour.

157. I must confess, it seems to be the opinion of some very ingenious men that flat or plane figures are immediate objects of sight, though they acknowledge solids are not. And this opinion of theirs is grounded on what is observed in painting, wherein (say they) the ideas immediately imprinted in the mind are only of planes variously coloured, which, by a sudden act of the judgment, are changed into solids: but, with a little attention, we shall find the planes here mentioned as the immediate objects of sight are not visible but tangible planes. For, when we say that pictures are planes, we mean thereby that they appear to the touch smooth and uniform. But then this smoothness and uniformity, or, in other words, this planeness of the picture is not perceived immediately by vision; for it appeareth to the eye various and multiform.

158. From all which we may conclude that planes are no more the immediate object of sight than solids. What we strictly see are not solids, nor yet planes variously coloured —they are only diversity of colours. And some of these suggest to the mind solids, and others plane figures; just as they have been experienced to be connected with the one or the other: so that we see plains in the same way that we see solids—both being equally suggested by the

immediate objects of sight, which accordingly are themselves denominated planes and solids. But, though they are called by the same names with the things marked by them, they are, nevertheless, of a nature entirely different, as hath been demonstrated[1].

159. What has been said is, if I mistake not, sufficient to decide the question we proposed to examine, concerning the ability of a pure spirit, such as we have described, to know geometry. It is, indeed, no easy matter for us to enter precisely into the thoughts of such an intelligence; because we cannot, without great pains, cleverly separate and disentangle in our thoughts the proper objects of sight from those of touch which are connected with them. This, indeed, in a complete degree seems scarce possible to be performed; which will not seem strange to us, if we consider how hard it is for any one to hear the words of his native language, which is familiar to him, pronounced in his ears without understanding them. Though he endeavour to disunite the meaning from the sound, it will nevertheless intrude into his thoughts, and he shall find it extreme difficult, if not impossible, to put himself exactly in the posture of a foreigner that never learnt the language, so as to be affected barely with the sounds themselves, and not perceive the signification annexed to them.

160. By this time, I suppose, it is clear that neither abstract nor visible extension makes the object of geometry; the not discerning of which may, perhaps, have created some difficulty and useless labour in mathematics. [[2]Sure I am that somewhat relating thereto has occurred to my thoughts; which, though after the most anxious and repeated examination I am forced to think it true, doth, nevertheless, seem so far out of the common road of geometry, that I know not whether it may not be thought presumption if

[1] Cf. sect. 130, and *New Theory of Vision Vindicated*, sect. 57. Does Berkeley, in this and the two preceding sections, mean to hint that the only proper object of sight is *unextended* colour; and that, apart from muscular movement in the eye or other locomotion, *visibilia* resolve into unextended mathematical points? This question has not escaped more recent British psychologists, including Stewart, Brown, Mill, and Bain, who seem to hold that unextended colour is perceivable and imaginable.

[2] The bracketed sentence is not retained in the author's last edition, in which the first sentence of sect. 160 is the concluding one of sect. 159, and of the *Essay*.

I should make it public, in an age wherein that science hath received such mighty improvements by new methods; great part whereof, as well as of the ancient discoveries, may perhaps lose their reputation, and much of that ardour with which men study the abstruse and fine geometry be abated, if what to me, and those few to whom I have imparted it, seems evidently true, should really prove to be so.]

AN APPENDIX

TO THE ESSAY ON VISION

[*This Appendix is contained only in the second edition.*]

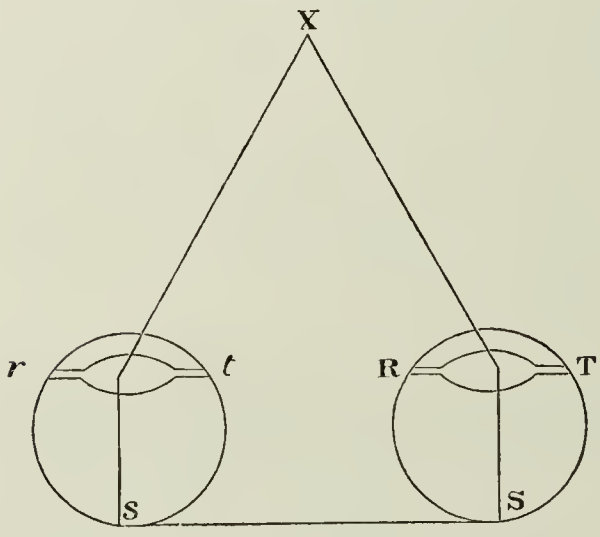
The censures which, I am informed, have been made on the foregoing *Essay* inclined me to think I had not been clear and express enough in some points; and, to prevent being misunderstood for the future, I was willing to make any necessary alterations or additions in what I had written. But that was impracticable, the present edition having been almost finished before I received this information. Wherefore, I think it proper to consider in this place the principal objections that are come to my notice.

In the *first* place, it is objected, that in the beginning of the Essay I argue either against all use of lines and angles in optics, and then what I say is false; or against those writers only who will have it that we can perceive by sense the optic axes, angles, &c., and then it is insignificant, this being an absurdity which no one ever held. To which I answer that I argue only against those who are of opinion that we perceive the distance of objects by lines and angles, or, as they term it, by a kind of innate geometry. And, to shew that this is not fighting with my own shadow, I shall here set down a passage from the celebrated Des Cartes [1]:—

'Distantiam præterea discimus, per mutuam quandam conspirationem oculorum. Ut enim cæcus noster duo bacilla tenens, *A E* et *C E*, de quorum longitudine incertus, solumque intervallum manuum *A* et *C*, cum magnitudine

[1] This passage is contained in the *Dioptrices* of Descartes, VI. 13; see also VI. 11.

angulorum *A C E*, et *C A E* exploratum habens, inde, ut ex Geometria quadam omnibus innata, scire potest ubi sit punctum *E*. Sic quum nostri oculi *R S T* et *r s t* ambo, vertuntur ad *X*, magnitudo lineæ *S s*, et angulorum *X S s* et *X s S*, certos nos reddunt ubi sit punctum *X*. Et idem opera alterutrius possumus indagare, loco illum movendo, ut si versus *X* illum semper dirigentes, primo sistamus in puncto *S*, et statim post in puncto *s*, hoc sufficiet ut magnitudo lineæ *S s*, et duorum angulorum *X S s* et *X s S* nostræ imaginationi simul occurrant, et distantiam puncti *X* nos edoceant: idque per actionem mentis, quæ licet simplex judicium esse videatur, ratiocinationem tamen quandam involutam habet, similem illi, qua Geometræ per duas stationes diversas, loca inaccessa dimetiuntur.'



I might amass together citations from several authors to the same purpose, but, this being so clear in the point, and from an author of so great note, I shall not trouble the reader with any more. What I have said on this head was not for the sake of finding fault with other men; but, because I judged it necessary to demonstrate in the first place that we neither see distance *immediately*, nor yet perceive it by the mediation of anything that hath (as lines and angles) a *necessary* connexion with it. For on the demonstration of this point the whole theory depends [1].

Secondly, it is objected, that the explication I give of the appearance of the horizontal moon (which may also be

[1] The arbitrariness or contingency—as far as our knowledge carries us — of the connexion between the visual phenomena, as signs, on the one hand, and actual distance, as perceived through this means, on the other.

applied to the sun) is the same that Gassendus had given before. I answer, there is indeed mention made of the grossness of the atmosphere in both; but then the methods wherein it is applied to solve the phenomenon are widely different, as will be evident to whoever shall compare what I have said on this subject with the following words of Gassendus:—

'Heinc dici posse videtur: solem humilem oculo spectatum ideo apparere majorem, quam dum altius egreditur, quia dum vicinus est horizonti prolixa est series vaporum, atque adeo corpusculorum quæ solis radios ita retundunt, ut oculus minus conniveat, et pupilla quasi umbrefacta longe magis amplificetur, quam dum sole multum elato rari vapores intercipiuntur, solque ipse ita splendescit, ut pupilla in ipsum spectans contractissima efficiatur. Nempe ex hoc esse videtur, cur visibilis species ex sole procedens, et per pupillam amplificatam intromissa in retinam, ampliorem in illa sedem occupet, majoremque proinde creet solis apparentiam, quam dum per contractam pupillam eodem intromissa contendit.' Vid. *Epist.* 1. *De Apparente Magnitudine Solis Humilis et Sublimis*, p. 6. This solution of Gassendus proceeds on a false principle, to wit, that the pupil's being enlarged augments the species or image on the fund of the eye.

Thirdly, against what is said in Sect. 80, it is objected, that the same thing which is so small as scarce to be discerned by a man, may appear like a mountain to some small insect; from which it follows that the *minimum visibile* is not equal in respect of all creatures [1]. I answer, if this objection be sounded to the bottom, it will be found to mean no more than that the same particle of matter which is marked to a man by one *minimum visibile*, exhibits to an insect a great number of *minima visibilia*. But this does not prove that one *minimum visibile* of the insect is not equal to one *minimum visibile* of the man. The not distinguishing between the mediate and immediate objects of sight is, I suspect, a cause of misapprehension in this matter.

Some other misinterpretations and difficulties have been

[1] Cf. sect. 80–83.

made, but, in the points they refer to, I have endeavoured to be so very plain that I know not how to express myself more clearly. All I shall add is, that if they who are pleased to criticise on my *Essay* would but read the whole over with some attention, they might be the better able to comprehend my meaning, and consequently to judge of my mistakes.

*** I am informed that, soon after the first edition of this treatise, a man somewhere near London was made to see, who had been born blind, and continued so for about twenty years[1]. Such a one may be supposed a proper judge to decide how far some tenets laid down in several places of the foregoing Essay are agreeable to truth; and if any curious person hath the opportunity of making proper interrogatories to him thereon, I should gladly see my notions either amended or confirmed by experience[2].

[1] The reference here seems to be to the case described in the *Tatler* (No. 55) of August 16, 1709, in which William Jones, born blind, had received sight after a surgical operation, at the age of twenty, on the 29th of June preceding. A medical narrative of this case appeared, entitled *A full and true account of a miraculous cure of a Young Man in Newington, who was born blind, and was in five minutes brought to perfect sight, by Mr. Roger Grant, oculist.* London, 1709.

[2] Cf. *New Theory of Vision Vindicated*, sect. 71, with the relative note.

A TREATISE

CONCERNING THE

PRINCIPLES OF HUMAN KNOWLEDGE

[1 PART I]

WHEREIN THE CHIEF CAUSES OF ERROR AND DIFFICULTY IN THE SCIENCES, WITH THE GROUNDS OF SCEPTICISM, ATHEISM, AND IRRELIGION, ARE INQUIRED INTO

First Published in 1710

[1] Omitted on the title-page in the second edition, but retained in the body of the work.

EDITOR'S PREFACE

TO THE

TREATISE CONCERNING THE PRINCIPLES OF HUMAN KNOWLEDGE

THIS book of *Principles* contains the most systematic and reasoned exposition of Berkeley's philosophy, in its early stage, which we possess. Like the *Essay on Vision*, its tentative pioneer, it was prepared at Trinity College, Dublin. Its author had hardly completed his twenty-fifth year when it was published. The first edition of this 'First Part' of the projected Treatise, 'printed by Aaron Rhames, for Jeremy Pepyat, bookseller in Skinner Row, Dublin,' appeared early in 1710. A second edition, with minor changes, and in which 'Part I' was withdrawn from the title-page, was published in London in 1734, 'printed for Jacob Tonson'—on the eve of Berkeley's settlement at Cloyne. It was the last in the author's lifetime. The projected 'Second Part' of the *Principles* was never given to the world, and we can hardly conjecture its design. In a letter in 1729 to his American friend, Samuel Johnson, Berkeley mentions that he had 'made considerable progress on the Second Part,' but 'the manuscript,' he adds, 'was lost about fourteen years ago, during my travels in Italy; and I never had leisure since to do so

disagreeable a thing as writing twice on the same subject[1].'

An edition of the *Principles* appeared in London in 1776, twenty-three years after Berkeley's death, with a running commentary of *Remarks* by the anonymous editor, on the pages opposite the text, in which, according to the editor, Berkeley's doctrines are 'carefully examined, and shewn to be repugnant to fact, and his principles to be incompatible with the constitution of human nature and the reason and fitness of things.' In this volume the *Dialogues between Hylas and Philonous* are appended to the *Principles*, and a 'Philosophical Discourse concerning the nature of Human Being' is prefixed to the whole, 'being a defence of Mr. Locke's principles, and some remarks on Dr. Beattie's *Essay on Truth*,' by the author of the *Remarks on Berkeley's Principles*. The acuteness of the *Remarks* is not in proportion to their bulk and diffuseness: many popular misconceptions of Berkeley are served up, without appreciation of the impotence of matter, and of natural causation as only passive sense-symbolism, which is at the root of the theory of the material world against which the *Remarks* are directed.

The Kantian and post-Kantian Idealism that is characteristic of the nineteenth century has recalled attention to Berkeley, who had produced his spiritual philosophy under the prevailing conditions of English thought in the preceding age, when Idealism in any form was uncongenial. In 1869 the book of *Principles* was translated into German, with annotations, by Ueberweg, professor of philosophy at Königsberg, the university of Kant. The Clarendon Press edition of the Collected Works of Berkeley followed in 1871. In 1874 an edition of the *Principles*, by Dr. Kranth, Professor of Philosophy in the university of Pennsylvania, appeared in America, with annotations drawn largely from

[1] Beardsley's *Life and Correspondence of Samuel Johnson, D.D., First President of King's College, New York*, p. 72 (1874).

the Clarendon Press edition and Ueberweg. In 1878 Dr. Collyns Simon republished the *Principles*, with discussions based upon the text, followed by an appendix of remarks on Kant and Hume in their relation to Berkeley.

The book of *Principles*, as we have it, must be taken as a systematic fragment of an incompletely developed philosophy. Many years after its appearance, the author thus describes the conditions:—'It was published when I was very young, and without doubt hath many defects. For though the notions should be true (as I verily think they are), yet it is difficult to express them clearly and consistently, language being framed for common use and received prejudices. I do not therefore pretend that my books can teach truth. All I hope for is that they may be an occasion to inquisitive men of discovering truth[1].' Again:—'I had no inclination to trouble the world with large volumes. What I have done was rather with the view of giving hints to thinking men, who have leisure and curiosity to go to the bottom of things, and pursue them in their own minds. Two or three times reading these small tracts (*Essay on Vision*, *Principles*, *Dialogues*, *De Motu*), and making what is read the occasion of thinking, would, I believe, render the whole familiar and easy to the mind, and take off that shocking appearance which hath often been observed to attend speculative truths[2].' The incitements to further and deeper thought thus proposed have met with a more sympathetic response in this generation than in the lifetime of Berkeley.

There is internal evidence in the book of *Principles* that its author had been a diligent and critical student of Locke's *Essay*. Like the *Essay*, it is dedicated to the Earl of Pembroke. The word *idea* is not less character-

[1] Beardsley's *Life of Johnson*, pp. 71, 72.

[2] Chandler's *Life of Johnson*, Appendix, p. 161.

istic of the *Principles* than of the *Essay*, although Berkeley generally uses it with a narrower application than Locke, confining it to phenomena presented objectively to our senses, and their subjective reproductions in imagination. With both Berkeley and Locke objective phenomena (under the name of ideas) are the materials supplied to man for conversion into natural science. Locke's reduction of ideas into simple and complex, as well as some of his subdivisions, reappear with modifications in the *Principles*. Berkeley's account of Substance and Power, Space and Time, while different from Locke's, still bears marks of the *Essay*. Concrete Substance, which in its ultimate meaning much perplexes Locke, is identified with the personal pronouns 'I' and 'you' by Berkeley, and is thus spiritualised. Cause proper, or Power, he finds only in the voluntary activity of persons. Space is presented to us in our sensuous experience of resistance to organic movements; while it is symbolised in terms of phenomena presented to sight, as already explained in the *Essay on Vision*. Time is revealed in our actual experience of change in the ideas or phenomena of which we are percipient in sense; length of time being calculated by the changes in the adopted measure of duration. Infinite space and infinite time, being necessarily incapable of finite ideation, are dismissed as abstractions that for man must always be empty of realisable meaning. Indeed, the *Commonplace Book* shews that Locke influenced Berkeley as much by antagonism as otherwise. 'Such was the candour of that great man that I persuade myself, were he alive, he would not be offended that I differed from him, seeing that in so doing I follow his advice to use my own judgment, see with my own eyes and not with another's.' So he argues against Locke's opinions about the infinity and eternity of space, and the possibility of matter endowed with power to think, and urges his inconsistency in treating some qualities

of matter as wholly material, while he insists that others, under the name of 'secondary,' are necessarily dependent on sentient intelligence. Above all he assails Locke's 'abstract ideas' as germs of scepticism—interpreting Locke's meaning paradoxically.

Next to Locke, Descartes and Malebranche are prominent in the *Principles*. Recognition of the ultimate supremacy of Spirit, or the spiritual character of active power and the constant agency of God in nature, suggested by Descartes, was congenial to Berkeley, but he was opposed to the mechanical conception of the universe found in the Cartesian physical treatises. That thought is synonymous with existence is a formula with which the French philosopher might make him familiar, as well as with the assumption that *ideas only* are immediate objects of human perception; an assumption in which Descartes was followed by Locke, and philosophical thinkers in the seventeenth and eighteenth centuries, but under differing interpretations of the term *idea*.

Malebranche appears less in the *Principles* than Locke and Descartes. In early life, at any rate, Berkeley would be less at home in the 'divine vision' of Malebranche than among the 'ideas' of Locke. The mysticism of the *Recherche de la Vérité* is unlike the transparent lucidity of Berkeley's juvenile thought. But the subordinate place and office of the material world in Malebranche's system, and his conception of power as wholly spiritual, approached the New Principles of Berkeley.

Plato and Aristotle hardly appear, either by name or as characteristic influence, in the book of *Principles*, which in this respect contrasts with the abundant references to ancient and mediaeval thinkers in *Siris*, and to a less extent in the *De Motu* and *Alciphron*.

The Introduction to the *Principles* is a proclamation of war against 'abstract ideas,' which is renewed in the body

of the work, and again more than once in the writings of Berkeley's early and middle life, but is significantly withdrawn in his old age. In the ardour of youth, his prime remedy for anarchy in philosophy, and for the sceptical disposition which philosophy had been apt to generate, was suppression of abstract ideas as impossible ideas—empty names heedlessly accepted as ideas—an evil to be counteracted by steady adherence to the concrete experience found in our senses and inner consciousness. Never to lose our hold of positive facts, and always to individualise general conceptions, are regulative maxims by which Berkeley would make us govern our investigation of ultimate problems. He takes up his position in the actual universe of applied reason; not in the empty void of abstract reason, remote from particulars and succession of change, in which no real existence is found. All realisable ideas must be either concrete data of sense, or concrete data of inward consciousness. It is relations embodied in particular facts, not pretended abstract ideas, that give fruitful meaning to common terms. Abstract matter, abstract substance, abstract power, abstract space, abstract time—unindividualisable in sense or in imagination—must all be void of meaning; the issue of unlawful analysis, which pretends to find what is real without the concrete ideas that make the real, because percipient spirit is the indispensable factor of all reality. The only lawful abstraction is *nominal*—the application, that is to say, of a name in common to an indefinite number of things which resemble one another. This is Berkeley's 'Nominalism.'

Berkeley takes Locke as the representative advocate of the 'abstract ideas' against which he wages war in the Introduction to the *Principles*. Under cover of an ambiguity in the term *idea*, he is unconsciously fighting against a man of straw. He supposes that Locke means by *idea* only a concrete datum of sense, or of imagina-

tion; and he argues that we cannot without contradiction abstract from all such data, and yet retain idea. But Locke includes among *his* ideas intellectual relations—what Berkeley himself afterwards distinguished as *notions*, in contrast with ideas. This polemic against Locke is therefore one of verbal confusion. In later life he probably saw this, as he saw deeper into the whole question involved. This is suggested by the omission of the argument against abstract ideas, given in earlier editions of *Alciphron*, from the edition published a year before he died. In his juvenile attack on abstractions, his characteristic impetuosity seems to carry him to the extreme of rejecting rational relations that are involved in the objectivity of sensible things and natural order, thus resting experience at last only on phenomena—particular and contingent.

A preparatory draft of the Introduction to the *Principles*, which I found in the manuscript department of the library of Trinity College, Dublin, is printed in the appendix to this edition of Berkeley's Philosophical Works. The variations are of some interest, biographical and philosophical. It seems to have been written in the autumn of 1708, and it may with advantage be compared with the text of the finished Introduction, as well as with numerous relative entries in the *Commonplace Book*.

After this Introduction, the New Principles themselves are evolved, in a corresponding spirit of hostility to empty abstractions. The sections may be thus divided:—

i. Rationale of the Principles (sect. 1–33).

ii. Supposed Objections to the Principles answered (sect. 34–84).

iii. Consequences and Applications of the Principles (sect. 85–156).

i. Rationale of the Principles.

The reader may remember that one of the entries in the *Commonplace Book* runs as follows :—'To begin the First Book, not with mention of sensation and reflexion, but, instead of sensation, to use perception, or thought in general.' Berkeley seems there to be oscillating between Locke and Descartes. He now adopts Locke's account of the materials of which our concrete experience consists (sect. 1). The data of human knowledge of existence are accordingly found in the ideas, phenomena, or appearances (*a*) of which we are percipient in the senses, and (*b*) of which we are conscious when we attend to our inward passions and operations—all which make up the original contents of human experience, to be reproduced in new forms and arrangements, (*c*) in memory and (*d*) imagination and (*e*) expectation. Those materials are called *ideas* because living mind or spirit is the indispensable realising factor : they all presuppose living mind, spirit, self, or ego to realise and elaborate them (sect. 2). This is implied in our use of personal pronouns, which signify, not ideas of any of the preceding kinds, but that which is 'entirely distinct from them, wherein they exist, or, which is the same thing, by which they are perceived.' In this fundamental presupposition Descartes is more apparent than Locke, and there is even an unconscious forecast of Kant and Hegel.

Berkeley next faces a New Question which his New Principles are intended to answer. How is the concrete world that is presented to our senses related to Mind or Spirit? Is all or any of its reality independent of percipient experience? Is it true that the phenomena of which we are percipient in sense are ultimately independent of all percipient and conscious life, and are even the ultimate basis of all that is real? Must we recognise in the phenomena of Matter the *substance* of what we call Mind?

For do we not find, when we examine Body and Spirit mutually related in our personality, that the latter is more dependent on the former, and on the physical cosmos of which the former is a part, than our body and its bodily surroundings are dependent on Spirit? In short, is not the universe of existence, in its final form, only lifeless Matter?

The claim of Matter to be supreme is what Berkeley produces his Principles in order to reduce. Concrete reality is self-evidently unreal, he argues, in the total absence of percipient Spirit, for Spirit is the one realising factor. Try to imagine the material world unperceived and you are trying to picture empty abstraction. Wholly material matter is self-evidently an inconceivable absurdity; a universe emptied of all percipient life is an impossible universe. The material world becomes real in being perceived: it depends for its reality upon the spiritual realisation. As colours in a dark room become real with the introduction of light, so the material world becomes real in the life and agency of Spirit. It must exist in terms of sentient life and percipient intelligence, in order to rise into any degree of reality that human beings at least can be at all concerned with, either speculatively or practically. Matter totally abstracted from percipient spirit must go the way of all abstract ideas. It is an illusion, concealed by confused thought and abuse of words; yet from obvious causes strong enough to stifle faith in this latent but self-evident Principle—that the universe of sense-presented phenomena can have concrete existence only in and by sentient intelligence. It is the reverse of this Principle that Berkeley takes to have been 'the chief source of all that scepticism and folly, all those contradictions and inexplicable puzzling absurdities, that have in all ages been a reproach to human reason[1].' And indeed,

[1] *Commonplace Book.*

when it is fully understood, it is seen in its own light to be the chief of 'those truths which are so near and obvious to the mind, that a man need only open his eyes to see them. For such I take this important one to be—that all the choir of heaven and furniture of the Earth, in a word, all those bodies which compose the mighty frame of the world, have not any subsistence without a Mind' (sect. 6). Living Mind or Spirit is the indispensable factor of all realities that are presented to our senses, including, of course, our own bodies.

Yet this Principle, notwithstanding its intuitive certainty, needs to be evoked by reflection from the latency in which it lies concealed, in the confused thought of the unreflecting. It is only gradually, and with the help of reasoning, that the world presented to the senses is distinctly recognised in this its deepest and truest reality. And even when we see that the phenomena *immediately* presented to our senses need to be realised in percipient experience, in order to be concretely real, we are ready to ask whether there may not be substances *like* the things so presented, which can exist 'without mind,' or in a wholly material way (sect. 8). Nay, are there not *some* of the phenomena immediately presented to our senses which do not need living mind to make them real? It is allowed by Locke and others that all those qualities of matter which are called *secondary* cannot be wholly material, and that living mind is indispensable for *their* realisation in nature; but Locke and the rest argue, that this is not so with the qualities which they call *primary*, and which they regard as of the essence of matter. Colours, sounds, tastes, smells are all allowed to be not wholly material; but are not the size, shape, situation, solidity, and motion of bodies qualities that are real without need for the realising agency of any Mind or Spirit in the universe, and which would continue to be what they are now if all Spirit, divine or human, ceased to exist?

The supposition that some of the phenomena of what is called Matter can be real, and yet wholly material, is discussed in sections 9-15, in which it is argued that the things of sense cannot exist really, in *any* of their manifestations, unless they are brought into reality in some percipient life and experience. It is held impossible that any quality of matter can have the reality which we all attribute to it, unless it is spiritually realised (sect. 15).

But may Matter not be real apart from all its so-called qualities, these being allowed to be not wholly material, because real only within percipient spirit? May not this wholly material Matter be Something that, as it were, exists *behind* the ideas, phenomena, or qualities that make their appearance to human beings? This question, Berkeley would say, is a meaningless and wholly unpractical one. Material substance that makes and can make no real appearance—unphenomenal or unideal—stripped of all its qualities—is only 'another name for abstract Being,' and 'the abstract idea of Being appeareth to me the most incomprehensible of all other. When I consider the two parts or branches which make up the words *material substance*, I am convinced there is no distinct meaning annexed to them' (sect. 17). Neither Sense nor Reason inform us of the existence of real material substances that exist *abstractly*, or out of all relation to the secondary and primary qualities of which we are percipient when we exercise our senses. By our senses we cannot perceive more than ideas or phenomena, aggregated as individual things that are presented to us: we cannot perceive substances that make no appearance in sense. Then as for reason, unrealised substances, abstracted from living Spirit, human or divine, being altogether meaningless, can in no way explain the concrete realisations of human experience. In short, if there are wholly unphenomenal material substances, it is impossible that we should ever discover

them, or have any concern with them, speculative or practical; and if there are not, we should have the same reason to assert that there are which we have now (sect. 20). It is impossible to put any meaning into wholly abstract reality. 'To me the words mean either a direct contradiction, or nothing at all' (sect. 24).

The Principle that the *esse* of matter necessarily involves *percipi*, and its correlative Principle that there is not any other substance than Spirit, which is thus the indispensable factor of all reality, both lead on to the more obviously practical Principle—that the material world, *per se*, is wholly powerless, and that all changes in Nature are the immediate issue of the agency of Spirit (sect. 25–27). Concrete power, like concrete substance, is essentially spiritual. To be satisfied that the whole natural world is only the passive instrument and expression of Spiritual Power we are asked to analyse the sensuous data of experience. We can find no reason for attributing inherent power to any of the phenomena and phenomenal things that are presented to our senses, or for supposing that *they* can be active causes, either of the changes that are continuously in progress among themselves, or of the feelings, perceptions, and volitions of which spiritual beings are conscious. We find the ideas or phenomena that pass in procession before our senses related to one another as signs to their meanings, in a cosmical order that virtually makes the material world a language and a prophecy: but this cosmical procession is not found to originate in the ideas or phenomena themselves, and there is reason for supposing it to be maintained by ever-living Spirit, which thus not only substantiates the things of sense, but explains their laws of motion and their movements.

Yet the universe of reality is not exclusively One Spirit. Experience contradicts the supposition. I find

on trial that my personal power to produce changes in the ideas or phenomena which my senses present to me is a limited power (sect. 28–33). I can make and unmake my own fancies, but I cannot with like freedom make and unmake presentations of sense. When in daylight I open my eyes, it is not in my power to determine whether I shall see or not; nor is it in my power to determine what objects I shall see. The cosmical order of sense-phenomena is independent of my will. When I employ my senses, I find myself always confronted by sensible signs of perfect Reason and omnipresent Will. But I also awake in the faith that I am an individual person. And the sense-symbolism of which the material world consists, while it keeps me in constant and immediate relation to the Universal Spirit, whose language it is, keeps me likewise in intercourse with other persons, akin to myself, who are signified to me by their overt actions and articulate words, which enter into my sensuous experience. Sense-given phenomena thus, among their other instrumental offices, are the medium of communication between human beings, who by this means can find companions, and make signs to them. So while, at *our* highest point of view, Nature is Spirit, experience shews that there is room in the universe for a plurality of persons, individual, and in a measure free or morally responsible. If Berkeley does not say all this, his New Principles tend thus.

At any rate, in his reasoned exposition of his Principles he is anxious to distinguish those phenomena that are presented to the senses of all mankind from the private ideas or fancies of individual men (sect. 28–33). The former constitute the world which sentient beings realise in common. He calls them *ideas* because they are unrealisable without percipient mind; but still on the understanding that they are not to be confounded with the chimeras of imagination. They are more deeply and truly real than chimeras. The groups in which they are found

to coexist are the individual things of sense, whose fixed order of succession exemplifies what we call natural law, or natural causation: the correlation of their changes to our pleasures and pains, desires and aversions, makes scientific knowledge of their laws practically important to the life of man, in his embodied state.

Moreover, the real ideas presented to our senses, unlike those of imagination, Berkeley would imply, cannot be either representative or misrepresentative. Our imagination may mislead us: the original data of sense cannot: although we may, and often do, misinterpret their relations to one another, and to our pleasures and pains and higher faculties. The divine meaning with which they are charged, of which science is a partial expression, they may perhaps be said to represent. Otherwise representative sense-perception is absurdity: the ideas of sense cannot be representative in the way those of imagination are; for fancies are faint representations of data of sense. The appearances that sentient intelligence realises *are* the things of sense, and we cannot go deeper. If we prefer accordingly to call the material world a dream or a chimera, we must understand that it is the *reasonable* dream in which all sentient intelligence participates, and by which the embodied life of man must be regulated.

Has Berkeley, in his juvenile ardour, and with the impetuosity natural to him, while seeking to demonstrate the impotence of matter, and the omnipresent supremacy of Spirit, so spiritualised the material world as to make it unfit for the symbolical office in the universe of reality which he supposes it to discharge? Is its potential existence in God, and its percipient realisation by me, and presumably by innumerable other sentient beings, an adequate account of the real material world existing in place and time? Can this universal orderly dream experienced in sense involve the objectivity implied in its being the reliable medium of

social intercourse? Does *such* a material world provide me with a means of escape from absolute solitude? Nay, if Matter cannot rise into reality without percipient spirit as realising factor, can my individual percipient spirit realise *myself* without independent Matter? Without intelligent life Matter is pronounced unreal. But is it not also true that without Matter, and the special material organism we call our body, percipient spirit is unreal? Does not Nature seem as indispensable to Spirit as Spirit is to Nature? Must we not assume at least their unbeginning and unending coexistence, even if we recognise in Spirit the deeper and truer reality? Do the New Principles explain the *final* ground of trust and certainty about the universe of change into which I entered as a stranger when I was born? If they make all that I have believed in as *outward* to be in its reality *inward*, do they not disturb the balance that is necessary to *all* human certainties, and leave me without any realities at all?

That Berkeley at the age of twenty-five, and educated chiefly by Locke, had fathomed or even entertained all these questions was hardly to be looked for. How far he had gone may be gathered by a study of the sequel of his book of *Principles*.

ii. Objections to the New Principles answered (sect. 34–84).

The supposed Objections, with Berkeley's answers, may be thus interpreted:—

First objection. (Sect. 34–40.) The preceding Principles banish all substantial realities, and substitute a universe of chimeras.

Answer. This objection is a play upon the popular meaning of the word 'idea.' That name is appropriate to the phenomena presented in sense, because they become concrete realities only in the experience of living

Spirit; and so it is not confined to the chimeras of individual fancy, which may misrepresent the real ideas of sense that are presented in the natural system independently of our will.

Second objection. (Sect. 41.) The preceding Principles abolish the distinction between Perception and Imagination—between imagining one's self burnt and actually being burnt.

Answer. Real fire differs from fancied fire: as real pain does from fancied pain; yet no one supposes that real pain any more than imaginary pain can exist unfelt by a sentient intelligence.

Third objection. (Sect. 42–44.) We actually *see* sensible things existing at a distance from our bodies. Now, whatever is seen existing at a distance must be seen as existing external to us in our bodies, which contradicts the foregoing Principles.

Answer. Distance, or outness, is not visible. It is a conception which is suggested gradually, by our experience of the connexion between visible colours and certain visual sensations that accompany seeing, on the one hand, and our tactual experience, on the other—as was proved in the *Essay on Vision*, in which the ideality of the *visible* world is demonstrated[1].

Fourth objection. (Sect. 45–48.) It follows from the New Principles, that the material world must be undergoing continuous annihilation and recreation in the innumerable sentient experiences in which it becomes real.

Answer. According to the New Principles a thing may be realised in the sense-experience of *other* minds, during intervals of its perception by *my* mind; for the Principles do not affirm dependence only on this or that

[1] Moreover, even if the outness or distance of things *were* visible, it would not follow that either they or their distances could be real if unperceived. On the contrary, Berkeley implies that they *are* perceived *visually*.

mind, but on a living Mind. If this implies a constant creation of the material world, the conception of the universe as in a state of constant creation is not new, and it signally displays Divine Providence.

Fifth objection. (Sect. 49.) If extension and extended Matter can exist only *in mind*, it follows that extension is an attribute of mind—that mind is extended.

Answer. Extension and other sensible qualities exist in mind, not as *modes* of mind, which is unintelligible, but *as ideas* of which Mind is percipient; and this is absolutely inconsistent with the supposition that Mind is itself extended [1].

Sixth objection. (Sect. 50.) Natural philosophy proceeds on the assumption that Matter is independent of percipient mind, and it thus contradicts the New Principles.

Answer. On the contrary, Matter—if it means what exists abstractly, or in independence of all percipient Mind—is useless in natural philosophy, which is conversant exclusively with the ideas or phenomena that compose concrete things, not with empty abstractions.

Seventh objection. (Sect. 51.) To refer all change to spiritual agents alone, and to regard the things of sense as wholly impotent, thus discharging natural causes as the New Principles do, is at variance with human language and with good sense.

Answer. While we may speak as the multitude do, we should learn to think with the few who reflect. We may still speak of 'natural causes,' even when, as philosophers, we recognise that all true efficiency must be spiritual, and that the material world is only a system of sensible symbols,

[1] It is also to be remembered that sensible things exist 'in mind,' without being exclusively *mine*, as creatures of *my will*. In one sense, that only is mine in which my will exerts itself. But, in another view, my involuntary states of feeling and imagination are *mine*, because their existence depends on my consciousness of them; and even sensible things are so far *mine*, because, though present in many minds in common, they are, for me, dependent on *my* percipient mind.

regulated by Divine Will and revealing Omnipresent Mind.

Eighth objection. (Sect. 54, 55.) The natural belief of men seems inconsistent with the world being mind-dependent.

Answer. Not so when we consider that men seldom comprehend the deep meaning of their practical assumptions; and when we recollect the prejudices, once dignified as good sense, which have successively surrendered to philosophy.

Ninth objection. (Sect. 56, 57.) Any Principle that is inconsistent with our common faith in the existence of the material world must be rejected.

Answer. The fact that we are conscious of not being ourselves the cause of changes perpetually going on in our *sense*-ideas, some of which we gradually learn by experience to foresee, sufficiently accounts for the common belief in the independence of those ideas, and is what men truly mean by this.

Tenth objection. (Sect. 58, 59.) The foregoing Principles concerning Matter and Spirit are inconsistent with the laws of motion, and with other truths in mathematics and natural philosophy.

Answer. The laws of motion, and those other truths, may be all conceived and expressed in consistency with the absence of independent substance and causation in Matter.

Eleventh objection. (Sect. 60–66.) If, according to the foregoing Principles, the material world is merely phenomena presented by a Power not-ourselves to our senses, the elaborate contrivances which we find in Nature are useless; for we might have had all experiences that are needful without them, by the direct agency of God.

Answer. Elaborate contrivances in Nature are relatively necessary as signs: they express to *us* the occasional presence and some of the experience of other men, also the constant presence and power of the Universal Spirit, while

the scientific interpretation of elaborately constituted Nature is a beneficial moral and intellectual exercise.

Twelfth objection. (Sect. 67–79.) Although the impossibility of *active* Matter may be demonstrable, this does not prove the impossibility of *inactive* Matter, *neither solid nor extended,* which may be the occasion of our having sense-ideas.

Answer. This supposition in unintelligible: the words in which it is expressed convey no meaning.

Thirteenth objection. (Sect. 80, 81.) Matter may be *an unknowable Somewhat,* neither substance nor accident, cause nor effect, spirit nor idea: all the reasonings against Matter, conceived as something positive, fail, when this wholly negative notion is maintained.

Answer. This is to use the word 'Matter' as people use the word 'nothing': Unknowable Somewhat cannot be distinguished from nothing.

Fourteenth objection. (Sect. 82-84.) Although we cannot, in opposition to the New Principles, infer scientifically the existence of Matter, in abstraction from all realising percipient life, or form any conception, positive or negative, of what Matter is; yet Holy Scripture demands the faith of every Christian in the independent reality of the material world.

Answer. The *independent* reality of the material world is nowhere affirmed in Scripture.

iii. Consequences and Applications of the New Principles (sect. 85–156).

In this portion of the Treatise, the New Principles, already guarded against objections, are applied to enlighten and invigorate final faith, often suffering from the paralysis of the scepticism produced by materialism; also to improve the sciences, including those which relate to Mind, in man and in God. They are applied:—

1. To the refutation of Scepticism as to the reality of the world (sect. 85–91) and God (sect. 92–96);
2. To the liberation of thought from the bondage of unmeaning abstractions (sect. 97–100);
3. To the purification of Natural Philosophy, by making it an interpretation of ideas of sense, simply in their relations of coexistence and sequence, according to which they constitute the Divine Language of Nature (sect. 101–116);
4. To simplify Mathematics, by eliminating infinites and other empty abstractions (sect. 117–134);
5. To explain and sustain faith in the Immortality of men (sect. 135–144);
6. To explain the belief which each man has in the existence of other men; as signified to him in and through sense-symbolism (sect. 145);
7. To vindicate faith in God, who is signified in and through the sense-symbolism of universal nature (sect. 146–156).

It was only by degrees that Berkeley's New Principles attracted attention. A new mode of conceiving the world we live in, by a young and unknown author, published at a distance from the centre of English intellectual life, was apt to be overlooked. In connexion with the *Essay on Vision*, however, it drew enough of regard to make Berkeley an object of interest to the literary world on his first visit to London, three years after its publication.

TO THE RIGHT HONOURABLE

THOMAS, EARL OF PEMBROKE[1], &c.

KNIGHT OF THE MOST NOBLE ORDER OF THE GARTER, AND ONE OF THE LORDS OF HER MAJESTY'S MOST HONOURABLE PRIVY COUNCIL

My Lord,

You will perhaps wonder that an obscure person, who has not the honour to be known to your lordship, should presume to address you in this manner. But that a man who has written something with a design to promote Useful Knowledge and Religion in the world should make choice of your lordship for his patron, will not be thought strange by any one that is not altogether unacquainted with the present state of the church and learning, and consequently ignorant how great an ornament and support you are to both. Yet, nothing could have induced me to make you this present of my poor endeavours, were

[1] Thomas Herbert, eighth Earl of Pembroke and fifth Earl of Montgomery, was the correspondent and friend of Locke—who dedicated his famous *Essay* to him, as a work 'having some little correspondence with some parts of that nobler and vast system of the sciences your lordship has made so new, exact, and instructive a draft of.' He represents a family renowned in English political and literary history. He was born in 1656; was a nobleman of Christ Church, Oxford, in 1672; succeeded to his titles in 1683; was sworn of the Privy Council in 1689; and made a Knight of the Garter in 1700. He filled some of the highest offices in the state, in the reigns of William and Mary, and of Anne. He was Lord Lieutenant of Ireland in 1707, having previously been one of the Commissioners by whom the union between England and Scotland was negotiated. He died in January 1733.

I not encouraged by that candour and native goodness which is so bright a part in your lordship's character. I might add, my lord, that the extraordinary favour and bounty you have been pleased to shew towards our Society [1] gave me hopes you would not be unwilling to countenance the studies of one of its members. These considerations determined me to lay this treatise at your lordship's feet, and the rather because I was ambitious to have it known that I am with the truest and most profound respect, on account of that learning and virtue which the world so justly admires in your lordship,

My Lord,

Your lordship's most humble

and most devoted servant,

GEORGE BERKELEY.

[1] Trinity College, Dublin.

THE PREFACE

WHAT I here make public has, after a long and scrupulous inquiry[1], seemed to me evidently true and not unuseful to be known; particularly to those who are tainted with Scepticism, or want a demonstration of the existence and immateriality of God, or the natural immortality of the Soul. Whether it be so or no I am content the reader should impartially examine; since I do not think myself any farther concerned for the success of what I have written than as it is agreeable to truth. But, to the end this may not suffer, I make it my request that the reader suspend his judgment till he has once at least read the whole through, with that degree of attention and thought which the subject-matter shall seem to deserve. For, as there are some passages that, taken by themselves, are very liable (nor could it be remedied) to gross misinterpretation, and to be charged with most absurd consequences, which, nevertheless, upon an entire perusal will appear not to follow from them; so likewise, though the whole should be read over, yet, if this be done transiently, it is very probable my sense may be mistaken: but to a thinking reader, I flatter myself it will be throughout clear and obvious.

As for the characters of novelty and singularity[2] which

[1] In his *Commonplace Book* Berkeley seems to refer his speculations to his boyhood. The conception of the material world propounded in the following Treatise was in his view before the publication of the *New Theory of Vision*, which was intended to prepare the way for it.

[2] Cf. Locke, in the 'Epistle Dedicatory' of his *Essay*. Notwithstanding the 'novelty' of the New Principles, viz. *negation* of abstract or unperceived Matter, Space, Time, Substance, and Power; and *affirmation* of Mind, as the Synthesis, Substance, and Cause of all—much in best preceding

some of the following notions may seem to bear, it is, I hope, needless to make any apology on that account. He must surely be either very weak, or very little acquainted with the sciences, who shall reject a truth that is capable of demonstration [1], for no other reason but because it is newly known, and contrary to the prejudices of mankind.

Thus much I thought fit to premise, in order to prevent, if possible, the hasty censures of a sort of men who are too apt to condemn an opinion before they rightly comprehend it [2].

philosophy, ancient and modern, was a dim anticipation of it.

[1] Cf. sect. 6, 22, 24, &c., in illustration of the demonstrative claim of Berkeley's initial doctrine.

[2] Berkeley entreats his reader, here and throughout, to take pains to understand his meaning, and especially to avoid confounding the ordered ideas or phenomena, objectively presented to our senses, with capricious chimeras of imagination.

INTRODUCTION

1. PHILOSOPHY being nothing else but the study of Wisdom and Truth [1], it may with reason be expected that those who have spent most time and pains in it should enjoy a greater calm and serenity of mind, a greater clearness and evidence of knowledge, and be less disturbed with doubts and difficulties than other men. Yet, so it is, we see the illiterate bulk of mankind, that walk the high-road of plain common sense, and are governed by the dictates of nature, for the most part easy and undisturbed. To them nothing that is familiar appears unaccountable or difficult to comprehend. They complain not of any want of evidence in their senses, and are out of all danger of becoming Sceptics. But no sooner do we depart from sense and instinct to follow the light of a superior principle—to reason, meditate, and reflect on the nature of things, but a thousand scruples spring up in our minds, concerning those things which before we seemed fully to comprehend. Prejudices and errors of sense do from all parts discover themselves to our view; and, endeavouring to correct these by reason, we are insensibly drawn into uncouth paradoxes, difficulties, and inconsistencies, which multiply and grow upon us as we advance in speculation; till at length, having wandered through many intricate mazes, we find ourselves just where we were, or, which is worse, sit down in a forlorn Scepticism [2].

[1] 'Philosophy is nothing but the true knowledge of things.' Locke.

[2] The purpose of those early essays of Berkeley was to reconcile philosophy with common sense, by employing reflection to make *latent* common sense, or common reason, reveal itself in its genuine integrity. Cf. the closing sentences in the *Third Dialogue between Hylas and Philonous.*

2. The cause of this is thought to be the obscurity of things, or the natural weakness and imperfection of our understandings. It is said the faculties we have are few, and those designed by nature for the support and pleasure of life, and not to penetrate into the inward essence and constitution of things: besides, the mind of man being finite, when it treats of things which partake of Infinity, it is not to be wondered at if it run into absurdities and contradictions, out of which it is impossible it should ever extricate itself; it being of the nature of Infinite not to be comprehended by that which is finite [1].

3. But, perhaps, we may be too partial to ourselves in placing the fault originally in our faculties, and not rather in the wrong use we make of them. It is a hard thing to suppose that right deductions from true principles should ever end in consequences which cannot be maintained or made consistent. We should believe that God has dealt more bountifully with the sons of men than to give them a strong desire for that knowledge which he had placed quite out of their reach. This were not agreeable to the wonted indulgent methods of Providence, which, whatever appetites it may have implanted in the creatures, doth usually furnish them with such means as, if rightly made use of, will not fail to satisfy them. Upon the whole, I am inclined to think that the far greater part, if not all, of those difficulties which have hitherto amused philosophers, and blocked up the way to knowledge, are entirely owing to ourselves. We have first raised a dust, and then complain we cannot see.

4. My purpose therefore is, to try if I can discover what those Principles are which have introduced all that doubtfulness and uncertainty, those absurdities and contradictions, into the several sects of philosophy; insomuch that the wisest men have thought our ignorance incurable, conceiving it to arise from the natural dulness and limitation of our faculties. And surely it is a work well deserving our pains to make a strict inquiry concerning the First

[1] Cf. Locke's *Essay*, Introduction, sect. 4–7; Bk. II. ch. 23, § 12, &c. Locke (who is probably here in Berkeley's eye) attributes the perplexities of philosophy to our narrow faculties, which are meant to regulate our lives, not to remove all mysteries. See also Descartes, *Principia*, I. 26, 27, &c.; Malebranche, *Recherche*, III. 2.

Principles of Human Knowledge; to sift and examine them on all sides: especially since there may be some grounds to suspect that those lets and difficulties, which stay and embarrass the mind in its search after truth, do not spring from any darkness and intricacy in the objects, or natural defect in the understanding, so much as from false Principles which have been insisted on, and might have been avoided.

5. How difficult and discouraging soever this attempt may seem, when I consider what a number of very great and extraordinary men have gone before me in the like designs[1], yet I am not without some hopes; upon the consideration that the largest views are not always the clearest, and that he who is short-sighted will be obliged to draw the object nearer, and may, perhaps, by a close and narrow survey, discern that which had escaped far better eyes.

6. In order to prepare the mind of the reader for the easier conceiving what follows, it is proper to premise somewhat, by way of Introduction, concerning the nature and abuse of Language. But the unravelling this matter leads me in some measure to anticipate my design, by taking notice of what seems to have had a chief part in rendering speculation intricate and perplexed, and to have occasioned innumerable errors and difficulties in almost all parts of knowledge. And that is the opinion that the mind hath a power of framing *abstract* ideas or notions of things[2]. He who is not a perfect stranger to the writings and disputes of philosophers must needs

[1] His most significant forerunners were Descartes in his *Principia*, and Locke in his *Essay*.

[2] Here 'idea' and 'notion' seem to be used convertibly. See sect. 142. Cf. with the argument against *abstract ideas*, unfolded in the remainder of the Introduction, *Principles*, sect. 97–100, 118–132, 143; *New Theory of Vision*, sect. 122–125; *Alciphron*, Dial. vii. 5–7; *Defence of Free Thinking in Mathematics*, sect. 45–48. Also *Siris*, sect. 323, 335, &c., where he distinguishes Idea in a higher meaning from his sensuous ideas. As mentioned in my Preface, the third edition of *Alciphron*, published in 1752, the year before Berkeley died, omits the three sections of the Seventh Dialogue which repeat the following argument against abstract ideas.

acknowledge that no small part of them are spent about abstract ideas. These are in a more especial manner thought to be the object of those sciences which go by the name of logic and metaphysics, and of all that which passes under the notion of the most abstracted and sublime learning; in all which one shall scarce find any question handled in such a manner as does not suppose their existence in the mind, and that it is well acquainted with them.

7. It is agreed on all hands that the *qualities* or *modes* of things do never really exist each of them apart by itself, and separated from all others, but are mixed, as it were, and blended together, several in the same object. But, we are told, the mind, being able to consider each quality singly, or abstracted from those other qualities with which it is united, does by that means frame to itself *abstract ideas*. For example, there is conceived by sight an object extended, coloured, and moved: this mixed or compound idea the mind resolving into its simple, constituent parts, and viewing each by itself, exclusive of the rest, does frame the abstract ideas of extension, colour, and motion. Not that it is possible for colour or motion to exist without extension; but only that the mind can frame to itself by abstraction the idea of colour exclusive of extension, and of motion exclusive of both colour and extension.

8. Again, the mind having observed that in the particular extensions perceived by sense there is something common and alike in all, and some other things peculiar, as this or that figure or magnitude, which distinguish them one from another, it considers apart, or singles out by itself, that which is common; making thereof a most abstract idea of extension; which is neither line, surface, nor solid, nor has any figure or magnitude, but is an idea entirely prescinded from all these. So likewise the mind, by leaving out of the particular colours perceived by sense that which distinguishes them one from another, and retaining that only which is common to all, makes an idea of colour in abstract; which is neither red, nor blue, nor white, nor any other determinate colour. And, in like manner, by considering motion abstractedly, not only from the body moved, but likewise from the figure it describes, and all particular directions and velocities, the abstract idea of motion is

framed; which equally corresponds to all particular motions whatsoever that may be perceived by sense.

9. And as the mind frames to itself abstract ideas of *qualities* or *modes*, so does it, by the same precision, or mental separation, attain abstract ideas of the more compounded *beings* which include several coexistent qualities. For example, the mind having observed that Peter, James, and John resemble each other in certain common agreements of shape and other qualities, leaves out of the complex or compound idea it has of Peter, James, and any other particular man, that which is peculiar to each, retaining only what is common to all, and so makes an abstract idea, wherein all the particulars equally partake; abstracting entirely from and cutting off all those circumstances and differences which might determine it to any particular existence. And after this manner it is said we come by the abstract idea of *man*, or, if you please, humanity, or human nature; wherein it is true there is included colour, because there is no man but has some colour, but then it can be neither white, nor black, nor any particular colour, because there is no one particular colour wherein all men partake. So likewise there is included stature, but then it is neither tall stature, nor low stature, nor yet middle stature, but something abstracted from all these. And so of the rest. Moreover, there being a great variety of other creatures that partake in some parts, but not all, of the complex idea of man, the mind, leaving out those parts which are peculiar to men, and retaining those only which are common to all the living creatures, frames the idea of *animal*; which abstracts not only from all particular men, but also all birds, beasts, fishes, and insects. The constituent parts of the abstract idea of animal are body, life, sense, and spontaneous motion. By *body* is meant body without any particular shape or figure, there being no one shape or figure common to all animals; without covering, either of hair, or feathers, or scales, &c., nor yet naked: hair, feathers, scales, and nakedness being the distinguishing properties of particular animals, and for that reason left out of the abstract idea. Upon the same account, the spontaneous motion must be neither walking, nor flying, nor creeping; it is nevertheless a motion, but what that motion is it is not easy to conceive.

10. Whether others have this wonderful faculty of abstracting their ideas, they best can tell [1]. For myself, [[2] I dare be confident I have it not.] I find indeed I have a faculty of imagining, or representing to myself, the ideas of those particular things I have perceived, and of variously compounding and dividing them. I can imagine a man with two heads; or the upper parts of a man joined to the body of a horse. I can consider the hand, the eye, the nose, each by itself abstracted or separated from the rest of the body. But then whatever hand or eye I imagine [3], it must have some particular shape and colour [1]. Likewise the idea of man that I frame to myself must be either of a white, or a black, or a tawny, a straight, or a crooked, a tall, or a low, or a middle-sized man. I cannot by any effort of thought conceive the abstract idea above described. And it is equally impossible for me to form the abstract idea of motion distinct from the body moving, and which is neither swift nor slow, curvilinear nor rectilinear; and the like may be said of all other abstract general ideas whatsoever. To be plain, I own myself able to abstract in one sense, as when I consider some particular parts or qualities separated from others, with which, though they are united in some object, yet it is possible they may really exist without them. But I deny that I can abstract from one another, or conceive separately, those qualities which it is impossible should exist so separated; or that I can frame a general notion, by abstracting from particulars in the manner aforesaid—which last are the two proper acceptations of *abstraction*. And there is ground to think most men will acknowledge themselves to be in my case. The generality of men which are simple and illiterate never pretend to abstract notions [4]. It is said they are difficult, and not to be attained without pains and study. We may

[1] As in Derodon's *Logica*, Pt. II. c.6, 7; *Philosophia Contracta*, I. i. §§ 7–11; and Gassendi, *Leg. Instit.*, I. 8; also Cudworth, *Eternal and Immutable Morality*, Bk. IV.

[2] Omitted in second edition.

[3] We must remember that what Berkeley intends by an *idea* is either a percept of sense, or a sensuous imagination; and his argument is that none of *these* can be an abstraction. We can neither perceive nor imagine what is not concrete and part of a succession.

[4] 'abstract notions'—here used convertibly with 'abstract ideas.' Cf. *Principles*, sect. 89 and 142, on the special meaning of *notion*.

therefore reasonably conclude that, if such there be, they are confined only to the learned.

11. I proceed to examine what can be alleged in defence of the doctrine of abstraction[1], and try if I can discover what it is that inclines the men of speculation to embrace an opinion so remote from common sense as that seems to be. There has been a late [[2] excellent and] deservedly esteemed philosopher[3] who, no doubt, has given it very much countenance, by seeming to think the having abstract general ideas is what puts the widest difference in point of understanding betwixt man and beast. 'The having of general ideas,' saith he, 'is that which puts a perfect distinction betwixt man and brutes, and is an excellency which the faculties of brutes do by no means attain unto. For it is evident we observe no foot-steps in them of making use of general signs for universal ideas; from which we have reason to imagine that they have not the faculty of abstracting, or making general ideas, since they have no use of words, or any other general signs.' And a little after:—'Therefore, I think, we may suppose, that it is in this that the species of brutes are discriminated from man: and it is that proper difference wherein they are wholly separated, and which at last widens to so wide a distance. For if they have any ideas at all, and are not bare machines (as some would have them[4]), we cannot deny them to have some reason. It seems as evident to me that they do, some of them, in certain instances, reason, as that they have sense; but it is only in particular ideas, just as they receive them from their senses. They are the best of them tied up within those narrow bounds, and have not (as I think) the faculty to enlarge them by any kind of abstraction.' —*Essay on Human Understanding,* B. II. ch. 11. § 10 and 11. I readily agree with this learned author, that the faculties of brutes can by no means attain to abstraction. But then if this be made the distinguishing property of that sort

[1] Supposed by Berkeley to mean, that we can imagine, in abstraction from all phenomena presented in concrete experience, e. g. imagine *existence*, in abstraction from all phenomena in which it manifests itself to us; or *matter*, stripped of all the phenomena in which it is realised in sense.

[2] Omitted in second edition.

[3] Locke.

[4] Descartes, who regarded brutes as (sentient?) machines.

of animals, I fear a great many of those that pass for men must be reckoned into their number. The reason that is here assigned, why we have no grounds to think brutes have abstract general ideas, is, that we observe in them no use of words, or any other general signs; which is built on this supposition, to wit, that the making use of words implies having general ideas. From which it follows that men who use language are able to abstract or generalize their ideas. That this is the sense and arguing of the author will further appear by his answering the question he in another place puts: 'Since all things that exist are only particulars, how come we by general terms?' His answer is: 'Words become general by being made the signs of general ideas.' —*Essay on Human Understanding*, B. III. ch. 3. § 6. But it seems that a word[1] becomes general by being made the sign, not of an abstract general idea, but of several particular ideas, any one of which it indifferently suggests to the mind. For example, when it is said 'the change of motion is proportional to the impressed force,' or that 'whatever has extension is divisible,' these propositions are to be understood of motion and extension in general; and nevertheless it will not follow that they suggest to my thoughts an *idea*[2] of motion without a body moved, or any determinate direction and velocity; or that I must conceive an *abstract general idea* of extension, which is neither line, surface, nor solid, neither great nor small, black, white, nor red, nor of any other determinate colour. It is only implied that whatever particular motion I consider, whether it be swift or slow, perpendicular, horizontal, or oblique, or in whatever object, the axiom concerning it holds equally true. As does the other of every particular extension; it matters not whether line, surface, or solid, whether of this or that magnitude or figure[3].

[1] 'To this I cannot assent, being of opinion that a word,' &c.—in first edition.

[2] 'an idea,' i. e. a concrete mental picture.

[3] So that 'generality' in an idea is, our 'consideration' of a particular idea (e. g. a 'particular motion' or a 'particular extension') not *per se*, but under general relations, which that particular idea exemplifies, and which, as he shews, may be signified by a corresponding word. All ideas (in Berkeley's confined meaning of 'idea') are particular. We rise above particular ideas by an intellectual apprehension of their relations; not by forming *abstract pictures*, which are contradictory absurdities.

12. By observing how ideas become general, we may the better judge how words are made so. And here it is to be noted that I do not deny absolutely there are *general ideas*, but only that there are any *abstract general ideas*. For, in the passages we have quoted wherein there is mention of general ideas, it is always supposed that they are formed by abstraction, after the manner set forth in sections 8 and 9[1]. Now, if we will annex a meaning to our words, and speak only of what we can conceive, I believe we shall acknowledge that an idea, which considered in itself is particular, becomes general, by being made to represent or stand for all other particular ideas of the same sort[2]. To make this plain by an example. Suppose a geometrician is demonstrating the method of cutting a line in two equal parts. He draws, for instance, a black line of an inch in length: this, which in itself is a particular line, is nevertheless *with regard to its signification* general; since, as it is there used, it represents all particular lines whatsoever; so that what is demonstrated of it is demonstrated of all lines, or, in other words, of a line in general[3]. And, as *that particular line* becomes general by being made a sign, so the *name* line, which taken absolutely is particular, by being a sign, is made general. And as the former owes its generality, not to its being the sign of an abstract or general line, but of all particular right lines that may possibly exist, so the latter must be thought to derive its generality from the same cause, namely, the various particular lines which it indifferently denotes.

13. To give the reader a yet clearer view of the nature of abstract ideas, and the uses they are thought necessary to, I shall add one more passage out of the *Essay on Human Understanding*, which is as follows:—'Abstract ideas are not so obvious or easy to children, or the yet unexercised mind, as particular ones. If they seem so to grown men, it is only because by constant and familiar use

[1] Locke is surely misconceived. He does not say, as Berkeley seems to suppose that in forming 'abstract ideas, we are forming abstract mental images—pictures in the mind that are not individual pictures.

[2] Does Locke intend more than this, although he expresses his meaning in ambiguous words?

[3] It is a particular idea, but considered relatively—a *significant* particular idea, in other words. We realise our notions in examples, and these must be concrete.

they are made so. For, when we nicely reflect upon them, we shall find that general ideas are fictions and contrivances of the mind, that carry difficulty with them, and do not so easily offer themselves as we are apt to imagine. For example, does it not require some pains and skill to form the general idea of a triangle (which is yet none of the most abstract, comprehensive, and difficult); for it must be neither oblique nor rectangle, neither equilateral, equicrural, nor scalenon; but all and none of these at once? In effect, it is something imperfect, that cannot exist; an idea[1] wherein some parts of several different and inconsistent ideas are put together. It is true the mind, in this imperfect state, has need of such ideas, and makes all the haste to them it can, for the conveniency of communication and enlargement of knowledge; to both which it is naturally very much inclined. But yet one has reason to suspect such ideas[1] are marks of our imperfection. At least this is enough to shew that the most abstract and general ideas are not those that the mind is first and most easily acquainted with, nor such as its earliest knowledge is conversant about.'—B. iv. ch. 7. § 9. If any man has the faculty of framing in his mind such an idea of a triangle as is here described, it is in vain to pretend to dispute him out of it, nor would I go about it. All I desire is that the reader would fully and certainly inform himself whether he has such an idea or no. And this, methinks, can be no hard task for any one to perform. What more easy than for any one to look a little into his own thoughts, and there try whether he has, or can attain to have, an idea that shall correspond with the description that is here given of the general idea of a triangle—which is neither oblique nor rectangle, equilateral, equicrural nor scalenon, but all and none of these at once?

14. Much is here said of the difficulty that abstract ideas carry with them, and the pains and skill requisite to the forming them. And it is on all hands agreed that there is

[1] i.e. 'ideas' in Locke's meaning of idea, under which he comprehends, not only the particular ideas of sense and imagination—Berkeley's 'ideas'—but these considered relatively, and so seen intellectually, when Locke calls them abstract, general, or universal. Omniscience in its all-comprehensive intuition may not require, or even admit, such general ideas.

need of great toil and labour of the mind, to emancipate our thoughts from particular objects, and raise them to those sublime speculations that are conversant about abstract ideas. From all which the natural consequence should seem to be, that so difficult a thing as the forming abstract ideas was not necessary for *communication*, which is so easy and familiar to all sorts of men. But, we are told, if they seem obvious and easy to grown men, it is only because by constant and familiar use they are made so. Now, I would fain know at what time it is men are employed in surmounting that difficulty, and furnishing themselves with those necessary helps for discourse. It cannot be when they are grown up; for then it seems they are not conscious of any such painstaking. It remains therefore to be the business of their childhood. And surely the great and multiplied labour of framing abstract notions[1] will be found a hard task for that tender age. Is it not a hard thing to imagine that a couple of children cannot prate together of their sugar-plums and rattles and the rest of their little trinkets, till they have first tacked together numberless inconsistencies, and so framed in their minds abstract general ideas, and annexed them to every common name they make use of?

15. Nor do I think them a whit more needful for the *enlargement of knowledge* than for communication. It is, I know, a point much insisted on, that all knowledge and demonstration are about universal notions, to which I fully agree. But then it does not appear to me that those notions are formed by abstraction in the manner premised—*universality*, so far as I can comprehend, not consisting in the absolute, positive nature or conception of anything, but in the relation it bears to the particulars signified or represented by it; by virtue whereof it is that things, names, or notions[2], being in their own nature *particular*, are *rendered universal*. Thus, when I demonstrate any proposition concerning triangles, it is supposed that I have in view the

[1] Here and in what follows, 'abstract *notion*,' 'universal *notion*,' instead of abstract *idea*. Notion seems to be here a synonym for idea, and not taken in the special meaning which he afterwards attached to the term, when he contrasted it with idea.

[2] 'notions,' again synonymous with ideas, which are all particular or concrete, in his meaning of *idea*, when he uses it strictly.

universal idea of a triangle: which ought not to be understood as if I could frame an *idea* [1] of a triangle which was neither equilateral, nor scalenon, nor equicrural; but only that the particular triangle I consider, whether of this or that sort it matters not, doth equally stand for and represent all rectilinear triangles whatsoever, and is in that sense universal. All which seems very plain and not to include any difficulty in it [2].

16. But here it will be demanded, how we can know any proposition to be true of all particular triangles, except we have first seen it demonstrated of the abstract idea of a triangle which equally agrees to all? For, because a property may be demonstrated to agree to some one particular triangle, it will not thence follow that it equally belongs to any other triangle which in all respects is not the same with it. For example, having demonstrated that the three angles of an isosceles rectangular triangle are equal to two right ones, I cannot therefore conclude this affection agrees to all other triangles which have neither a right angle nor two equal sides. It seems therefore that, to be certain this proposition is universally true, we must either make a particular demonstration for every particular triangle, which is impossible; or once for all demonstrate it of the abstract idea of a triangle, in which all the particulars do indifferently partake, and by which they are all equally represented. To which I answer, that, though the idea I have in view [3] whilst I make the demonstration be, for instance, that of an isosceles rectangular triangle whose sides are of a determinate length, I may nevertheless be certain it extends to all other rectilinear triangles, of what sort or bigness soever. And that because neither the right angle, nor the equality, nor determinate length of the sides are at all concerned in the demonstration. It is true the diagram I have in view [3] includes all these particulars; but then there is not the least mention made of *them* in the proof of the proposition. It is not said the three angles are equal to two right ones, because one of them is a right

[1] *idea*, i.e. individual mental picture.

[2] In all this he takes no account of the intellectual relations necessarily embodied in concrete knowledge, and without which experience could not cohere.

[3] 'have in view,' i.e. actually realise in imagination.

angle, or because the sides comprehending it are of the same length. Which sufficiently shews that the right angle might have been oblique, and the sides unequal, and for all that the demonstration have held good. And for this reason it is that I conclude that to be true of any obliquangular or scalenon which I had demonstrated of a particular right-angled equicrural triangle, and not because I demonstrated the proposition of the abstract idea of a triangle. [[1] And here it must be acknowledged that a man may *consider* a figure merely as triangular; without attending to the particular qualities of the angles, or relations of the sides. *So far he may abstract.* But this will never prove that he can frame an abstract, general, inconsistent *idea* of a triangle. In like manner we may consider Peter so far forth as man, or so far forth as animal, without framing the forementioned abstract idea, either of man or of animal; inasmuch as all that is perceived is not considered.]

17. It were an endless as well as an useless thing to trace the Schoolmen, those great masters of abstraction, through all the manifold inextricable labyrinths of error and dispute which their doctrine of abstract natures and notions seems to have led them into. What bickerings and controversies, and what a learned dust have been raised about those matters, and what mighty advantage has been from thence derived to mankind, are things at this day too clearly known to need being insisted on. And it had been well if the ill effects of that doctrine were confined to those only who make the most avowed profession of it. When men consider the great pains, industry, and parts that have for so many ages been laid out on the cultivation and advancement of the sciences, and that notwithstanding all this the far greater part of them remain full of darkness and uncertainty, and disputes that are like never to have an end; and even those that are thought to be supported by the most clear and cogent demonstrations contain in them paradoxes which are perfectly irreconcilable to the understandings of men; and that, taking all together, a very small portion of them does supply any real benefit to mankind, otherwise than by being an innocent diversion

[1] What follows, to the end of this section, was added in the second or 1734 edition.

and amusement[1]—I say, the consideration of all this is apt to throw them into a despondency and perfect contempt of all study. But this may perhaps cease upon a view of the false Principles that have obtained in the world; amongst all which there is none, methinks, hath a more wide influence[2] over the thoughts of speculative men than this of *abstract general ideas*.

18. I come now to consider the *source* of this prevailing notion, and that seems to me to be *language*. And surely nothing of less extent than reason itself could have been the source of an opinion so universally received. The truth of this appears as from other reasons so also from the plain confession of the ablest patrons of abstract ideas, who acknowledge that they are made in order to naming; from which it is clear consequence that if there had been no such thing as speech or universal signs, there never had been any thought of abstraction. See B. iii. ch. 6. § 39, and elsewhere of the *Essay on Human Understanding*.

Let us examine the manner wherein Words have contributed to the origin of that mistake.—First then, it is thought that every name has, or ought to have, one only precise and settled signification; which inclines men to think there are certain abstract determinate ideas that constitute the true and only immediate signification of each general name; and that it is by the mediation of these abstract ideas that a general name comes to signify any particular thing. Whereas, in truth, there is no such thing as one precise and definite signification annexed to any general name, they all signifying indifferently a great number of particular ideas. All which does evidently follow from what has been already said, and will clearly appear to any one by a little reflexion. To this it will be objected that every name that has a definition is thereby restrained to one certain signification. For example, a triangle is defined to be 'a plain surface comprehended by three right lines'; by which that name is limited to denote one certain idea and no other. To which I answer, that in the definition it is not

[1] So Bacon in many passages of his *De Augmentis Scientiarum* and *Novum Organum*.

[2] 'wide influence,'—'wide and extended sway'—in first edition.

said whether the surface be great or small, black or white, nor whether the sides are long or short, equal or unequal, nor with what angles they are inclined to each other; in all which there may be great variety, and consequently there is no one settled idea which limits the signification of the word triangle. It is one thing for to keep a name constantly to the same *definition*, and another to make it stand everywhere for the same *idea*[1]: the one is necessary, the other useless and impracticable.

19. But, to give a farther account how words came to produce the doctrine of abstract ideas, it must be observed that it is a received opinion that language has no other end but the communicating ideas, and that every significant name stands for an idea. This being so, and it being withal certain that names which yet are not thought altogether insignificant do not always mark out particular conceivable ideas, it is straightway concluded that they stand for abstract notions. That there are many names in use amongst speculative men which do not always suggest to others determinate, particular ideas, or in truth anything at all, is what nobody will deny. And a little attention will discover that it is not necessary (even in the strictest reasonings) that significant names which stand for ideas should, every time they are used, excite in the understanding the ideas they are made to stand for: in reading and discoursing, names being for the most part used as letters are in Algebra, in which, though a particular quantity be marked by each letter, yet to proceed right it is not requisite that in every step each letter suggest to your thoughts that particular quantity it was appointed to stand for[2].

20. Besides, the communicating of ideas marked by words is not the chief and only end of language, as is commonly supposed. There are other ends, as the raising of some passion, the exciting to or deterring from an action, the putting the mind in some particular disposition; to which the former is in many cases barely subservient, and sometimes entirely omitted, when these can be obtained with-

[1] 'idea,' i. e. individual datum of sense or of imagination.

[2] See Leibniz on Symbolical Knowledge (*Opera Philosophica*, pp. 79, 80, Erdmann), and Stewart in his *Elements*, vol. I. ch. 4, § 1, on our habit of using language without realising, in individual examples or ideas, the meanings of the common terms used.

out it, as I think doth[1] not unfrequently happen in the familiar use of language. I entreat the reader to reflect with himself, and see if it doth not often happen, either in hearing or reading a discourse, that the passions of fear, love, hatred, admiration, and disdain, and the like, arise immediately in his mind upon the perception of certain words, without any ideas[2] coming between. At first, indeed, the words might have occasioned ideas[2] that were fitting to produce those emotions; but, if I mistake not, it will be found that, when language is once grown familiar, the hearing of the sounds or sight of the characters is oft immediately attended with those passions which at first were wont to be produced by the intervention of ideas[2] that are now quite omitted. May we not, for example, be affected with the promise of a *good thing*, though we have not an idea of what it is? Or is not the being threatened with danger sufficient to excite a dread, though we think not of any particular evil likely to befal us, nor yet frame to ourselves an idea of danger in abstract? If any one shall join ever so little reflection of his own to what has been said, I believe that it will evidently appear to him that general names are often used in the propriety of language without the speakers designing them for marks of ideas[2] in his own, which he would have them raise in the mind of the hearer. Even proper names themselves do not seem always spoken with a design to bring into our view the ideas[2] of those individuals that are supposed to be marked by them. For example, when a schoolman tells me 'Aristotle hath said it,' all I conceive he means by it is to dispose me to embrace his opinion with the deference and submission which custom has annexed to that name. And this effect may be so instantly produced in the minds of those who are accustomed to resign their judgment to authority of that philosopher, as it is impossible any idea either of his person, writings, or reputation should go before. [[3] So close and immediate a connexion may custom establish

[1] 'doth'—'does,' here and elsewhere in first edition.

[2] 'ideas,' i. e. representations in imagination of *any* of the individual objects to which the names are applicable. The sound or sight of a verbal sign may do duty for the concrete idea in which the notion signified by the word might be exemplified.

[3] This sentence is omitted in the second edition.

betwixt the very word Aristotle[1] and the motions of assent and reverence in the minds of some men.] Innumerable examples of this kind may be given, but why should I insist on those things which every one's experience will, I doubt not, plentifully suggest unto him?

21. We have, I think, shewn the impossibility of Abstract Ideas. We have considered what has been said for them by their ablest patrons; and endeavoured to shew they are of no use for those ends to which they are thought necessary. And lastly, we have traced them to the source from whence they flow, which appears evidently to be Language.

It cannot be denied that words are of excellent use, in that by their means all that stock of knowledge which has been purchased by the joint labours of inquisitive men in all ages and nations may be drawn into the view and made the possession of one single person. But [[2] at the same time it must be owned that] most parts of knowledge have been [[3] so] strangely perplexed and darkened by the abuse of words, and general ways of speech wherein they are delivered, [[3] that it may almost be made a question whether language has contributed more to the hindrance or advancement of the sciences]. Since therefore words are so apt to impose on the understanding, [[3] I am resolved in my inquiries to make as little use of them as possibly I can:] whatever ideas I consider, I shall endeavour to take them bare and naked into my view; keeping out of my thoughts, so far as I am able, those names which long and constant use hath so strictly united with them. From which I may expect to derive the following advantages:—

22. *First*, I shall be sure to get clear of all controversies purely verbal, the springing up of which weeds in almost all the sciences has been a main hindrance to the growth of true and sound knowledge. *Secondly*, this seems to be a sure way to extricate myself out of that fine and subtle net

[1] Elsewhere he mentions Aristotle as 'certainly a great admirer and promoter of the doctrine of abstraction,' and quotes his statement that there is hardly anything so incomprehensible to men as notions of the utmost universality; for they are the most remote from sense. *Metaph.*, Bk. I. ch. 2.

[2] Added in second edition.

[3] Omitted in second edition.

of abstract ideas, which has so miserably perplexed and entangled the minds of men; and that with this peculiar circumstance, that by how much the finer and more curious was the wit of any man, by so much the deeper was he likely to be ensnared and faster held therein. *Thirdly*, so long as I confine my thoughts to my own ideas[1], divested of words, I do not see how I can easily be mistaken. The objects I consider, I clearly and adequately know. I cannot be deceived in thinking I have an idea which I have not. It is not possible for me to imagine that any of my own ideas are alike or unlike that are not truly so. To discern the agreements or disagreements there are between my ideas, to see what ideas are included in any compound idea and what not, there is nothing more requisite than an attentive perception of what passes in my own understanding.

23. But the attainment of all these advantages does presuppose an entire deliverance from the deception of words; which I dare hardly promise myself, so difficult a thing it is to dissolve an union so early begun, and confirmed by so long a habit as that betwixt words and ideas. Which difficulty seems to have been very much increased by the doctrine of *abstraction*. For, so long as men thought *abstract* ideas were annexed to their words, it does not seem strange that they should use words for ideas; it being found an impracticable thing to lay aside the word, and retain the *abstract* idea in the mind; which in itself was perfectly inconceivable. This seems to me the principal cause why those who have so emphatically recommended to others the laying aside all use of words in their meditations, and contemplating their bare ideas, have yet failed to perform it themselves. Of late many have been very sensible of the absurd opinions and insignificant disputes which grow out of the abuse of words. And, in order to remedy these evils, they advise well[2], that we attend to the ideas signified, and draw off our attention from the words which signify them[3].

[1] 'my own ideas,' i. e. the concrete phenomena which I can realise as perceptions of sense, or in imagination.

[2] He probably refers to Locke.

[3] According to Locke, 'that which has most contributed to hinder the due tracing of our ideas, and finding out their relations, and agreements or disagreements one with another, has been, I suppose, the ill use of words. It is impossible that men should ever truly seek, or certainly discover,

But, how good soever this advice may be they have given others, it is plain they could not have a due regard to it themselves, so long as they thought the only immediate use of words was to signify ideas, and that the immediate signification of every general name was a determinate abstract idea.

24. But these being known to be mistakes, a man may with greater ease prevent his being imposed on by words. He that knows he has no other than *particular* ideas, will not puzzle himself in vain to find out and conceive the *abstract* idea annexed to any name. And he that knows names do not always stand for ideas [1] will spare himself the labour of looking for ideas where there are none to be had. It were, therefore, to be wished that every one would use his utmost endeavours to obtain a clear view of the ideas he would consider; separating from them all that dress and incumbrance of words which so much contribute to blind the judgment and divide the attention. In vain do we extend our view into the heavens and pry into the entrails of the earth, in vain do we consult the writings of learned men and trace the dark footsteps of antiquity. We need only draw the curtain of words, to behold the fairest tree of knowledge, whose fruit is excellent, and within the reach of our hand.

25. Unless we take care to clear the First Principles of Knowledge from the embarras and delusion of Words, we may make infinite reasonings upon them to no purpose; we may draw consequences from consequences, and be never the wiser. The farther we go, we shall only lose ourselves the more irrecoverably, and be the deeper entangled in difficulties and mistakes. Whoever therefore designs to read the following sheets, I entreat him that he

the agreement or disagreement of ideas themselves, whilst their thoughts flutter about, or stick only in sounds of doubtful and uncertain significations. Mathematicians, abstracting their thoughts from names, and accustoming themselves to set before their minds the ideas themselves that they would consider, and not sounds instead of them, have avoided thereby a great part of that perplexity, puddering, and confusion which has so much hindered men's progress in other parts of knowledge.' *Essay*, Bk. IV. ch. 3, § 30. See also Bk. III. ch. 10, 11.

[1] General names involve in their signification intellectual relations among ideas or phenomena; but the relations, *per se*, are unimaginable.

would make my words the occasion of his own thinking, and endeavour to attain the same train of thoughts in reading that I had in writing them. By this means it will be easy for him to discover the truth or falsity of what I say. He will be out of all danger of being deceived by my words. And I do not see how he can be led into an error by considering his own naked, undisguised ideas[1].

[1] The rough draft of the Introduction, prepared two years before the publication of the *Principles* (see Appendix, vol. III), should be compared with the published version. He there tells that 'there was a time when, being bantered and abused by words,' he 'did not in the least doubt' that he was 'able to abstract his ideas'; adding that 'after a strict survey of my abilities, I not only discovered my own deficiency on this point, but also cannot conceive it possible that such a power should be even in the most perfect and exalted understanding.' What he thus pronounces 'impossible,' is a *sensuous* perception or imagination of an intellectual relation, as to which most thinkers would agree with him. But in so arguing, he seems apt to discard the intellectual relations themselves that are necessarily embodied in experience.

David Hume refers thus to Berkeley's doctrine about 'abstract ideas':—'A great philosopher has asserted that all general ideas are nothing but particular ones annexed to a certain term, which gives them a more extensive signification. I look upon this to be one of the greatest and most valuable discoveries that has been made of late years in the republic of letters.' (*Treatise of H. N.* Pt. I, sect. 7.)

OF THE

PRINCIPLES

OF

HUMAN KNOWLEDGE

PART FIRST

1. It is evident to any one who takes a survey of the *objects of human knowledge*, that they are either *ideas* actually imprinted on the senses; or else such as are perceived by attending to the passions and operations of the mind; or lastly, *ideas* formed by help of memory and imagination—either compounding, dividing, or barely representing those originally perceived in the aforesaid ways. By sight I have the ideas of light and colours, with their several degrees and variations. By touch I perceive hard and soft, heat and cold, motion and resistance; and of all these more and less either as to quantity or degree. Smelling furnishes me with odours; the palate with tastes; and hearing conveys sounds to the mind in all their variety of tone and composition [1].

[1] This resembles Locke's account of the ideas with which human knowledge is concerned. They are all originally presented to the senses, or got by reflexion upon the passions and acts of the mind; and the materials contributed in this external and internal experience are, with the help of memory and imagination, elaborated by the human understanding in ways innumerable, true and false. See Locke's *Essay*, Bk. II, ch. 1, §§ 1–5; ch. 10, 11, 12.

And as several of these are observed to accompany each other, they come to be marked by one name, and so to be reputed as one *thing*. Thus, for example, a certain colour, taste, smell, figure and consistence having been observed to go together, are accounted one distinct thing, signified by the name apple; other collections of ideas constitute a stone, a tree, a book, and the like sensible things; which as they are pleasing or disagreeable excite the passions of love, hatred, joy, grief, and so forth [1].

2. But, besides all that endless variety of ideas or objects of knowledge, there is likewise Something which knows or perceives them; and exercises divers operations, as willing, imagining, remembering, about them. This perceiving, active being is what I call *mind*, *spirit*, *soul*, or *myself*. By which words I do not denote any one of my ideas, but a thing entirely distinct from them, wherein they exist, or, which is the same thing, whereby they are perceived; for the existence of an idea consists in being perceived [2].

3. That neither our thoughts, nor passions, nor ideas formed by the imagination, exist without the mind is what everybody will allow. And to me it seems no less evident that the various sensations or ideas imprinted on the Sense, however blended or combined together (that is, whatever objects they compose), cannot exist otherwise than in a mind perceiving them [3]. I think an intuitive knowledge may be obtained of this, by any one that shall attend to what is meant by the term *exist* when applied to

[1] The ideas or phenomena of which we are percipient in our five senses make their appearance, not isolated, but in individual masses, constituting the things, that occupy their respective places in perceived ambient space. It is as *qualities* of *things* that the ideas or phenomena of sense arise in human experience.

[2] This is an advance upon the language of the *Commonplace Book*, in which 'mind' is spoken of as only a 'congeries of perceptions.' Here it is something 'entirely distinct' from ideas or perceptions, in which they exist and are perceived, and on which they ultimately depend. Spirit, intelligent and active, presupposed with its implicates in ideas, thus becomes the basis of Berkeley's philosophy. Is this subjective idealism only? Locke appears in sect. 1, Descartes, if not Kant by anticipation, in sect. 2.

[3] This sentence expresses Berkeley's New Principle, which filled his thoughts in the *Commonplace Book*. Note 'in *a* mind,' not necessarily in *my* mind.

sensible things[1]. The table I write on I say exists; that is, I see and feel it: and if I were out of my study I should say it existed; meaning thereby that if I was in my study I might perceive it, or that some other spirit actually does perceive it. There was an odour, that is, it was smelt; there was a sound, that is, it was heard; a colour or figure, and it was perceived by sight or touch. This is all that I can understand by these and the like expressions[2]. For as to what is said of the *absolute* existence of unthinking things, without any relation to their being perceived, that is to me perfectly unintelligible. Their *esse* is *percipi*; nor is it possible they should have any existence out of the minds or thinking things which perceive them[3].

4. It is indeed an opinion strangely prevailing amongst men, that houses, mountains, rivers, and in a word all sensible objects, have an existence, natural or real[4], distinct from their being perceived by the understanding. But, with how great an assurance and acquiescence soever this Principle may be entertained in the world, yet whoever shall find in his heart to call it in question may, if I mistake not, perceive it to involve a manifest contradiction. For, what are the forementioned objects but the things we perceive by sense? and what do we perceive besides our own[5] ideas or sensations? and is it not plainly repugnant that any one of these, or any combination of them, should exist unperceived?

5. If we throughly examine this tenet[6] it will, perhaps,

[1] That is to say, one has only to put concrete meaning into the terms *existence* and *reality*, in order to have 'an intuitive knowledge' that matter depends for its real existence on percipient spirit.

[2] In other words, the things of sense become real, only in the concrete experience of living mind, which gives them the only reality we can conceive or have any sort of concern with. Extinguish Spirit and the material world necessarily ceases to be real.

[3] That *esse* is *percipi* is Berkeley's initial Principle, called 'intuitive' or self-evident.

[4] Mark that it is the 'natural or real existence' of the material world, in the absence of all realising Spirit, that Berkeley insists is impossible —meaningless.

[5] 'our own'—yet not exclusively *mine*. They depend for their reality upon *a* percipient, not on *my* perception.

[6] 'this tenet,' i.e. that the concrete material world could still be a reality after the annihilation of all realising spiritual life in the universe —divine or other.

be found at bottom to depend on the doctrine of *abstract ideas*. For can there be a nicer strain of abstraction than to distinguish the existence of sensible objects from their being perceived, so as to conceive them existing unperceived[1]? Light and colours, heat and cold, extension and figures—in a word the things we see and feel—what are they but so many sensations, notions[2], ideas, or impressions on the sense? and is it possible to separate, even in thought, any of these from perception? For my part, I might as easily divide a thing from itself. I may, indeed, divide in my thoughts, or conceive apart from each other, those things which perhaps I never perceived by sense so divided. Thus, I imagine the trunk of a human body without the limbs, or conceive the smell of a rose without thinking on the rose itself. So far, I will not deny, I can abstract; if that may properly be called *abstraction* which extends only to the conceiving separately such objects as it is possible may really exist or be actually perceived asunder. But my conceiving or imagining power does not extend beyond the possibility of real existence or perception. Hence, as it is impossible for me to see or feel anything without an actual sensation of that thing, so is it impossible for me to conceive in my thoughts any sensible thing or object distinct from the sensation or perception of it. [[3] In truth, the object and the sensation are the same thing, and cannot therefore be abstracted from each other.]

6. Some truths there are so near and obvious to the mind that a man need only open his eyes to see them. Such I take this important one to be, viz. that all the choir of heaven and furniture of the earth, in a word all those bodies which compose the mighty frame of the world, have not any subsistence without a mind; that their *being* is to be perceived or known; that consequently so long as they are not actually perceived by me, or do not exist in my mind, or that of any other created spirit, they must either

[1] 'existing unperceived,' i. e. existing without being realised in any living percipient experience—existing in a totally abstract existence, whatever that can mean.

[2] 'notions'—a term elsewhere (see sect. 27, 89, 142) restricted, is here applied to the immediate data of the senses—the ideas of sense.

[3] This sentence is omitted in the second edition.

have no existence at all, or else subsist in the mind of some Eternal Spirit: it being perfectly unintelligible, and involving all the absurdity of abstraction, to attribute to any single part of them an existence independent of a spirit. [[1] To be convinced of which, the reader need only reflect, and try to separate in his own thoughts the *being* of a sensible thing from its *being perceived.*]

7. From what has been said it is evident there is not any other Substance than *Spirit,* or that which perceives[2]. But, for the fuller proof[3] of this point, let it be considered the sensible qualities are colour, figure, motion, smell, taste, and such like, that is, the ideas perceived by sense. Now, for an idea to exist in an unperceiving thing is a manifest contradiction; for to have an idea is all one as to perceive: that therefore wherein colour, figure, and the like qualities exist must perceive them. Hence it is clear there can be no unthinking substance or *substratum* of those ideas.

8. But, say you, though the ideas themselves[4] do not exist without the mind, yet there may be things like them, whereof they are copies or resemblances; which things exist without the mind, in an unthinking substance[5]. I answer, an idea can be like nothing but an idea; a colour or figure can be like nothing but another colour or figure. If we look but never so little into our thoughts, we shall find it impossible for us to conceive a likeness except only between our ideas. Again, I ask whether those supposed *originals,* or external things, of which our ideas are the pictures or representations, be themselves perceivable or

[1] In the first edition, instead of this sentence, we have the following: 'To make this appear with all the light and evidence of an Axiom, it seems sufficient if I can but awaken the reflexion of the reader, that he may take an impartial view of his own meaning, and turn his thoughts upon the subject itself; free and disengaged from all embarras of words and prepossession in favour of received mistakes.'

[2] In other words, active percipient Spirit is at the root of all intelligible trustworthy experience.

[3] 'proof' — 'demonstration' in first edition; yet he calls it 'intuitive.'

[4] 'the ideas themselves,' i. e. the phenomena immediately presented in sense, and that are thus realised in and through the percipient experience of living mind, as their factor.

[5] As those say who assume that perception is ultimately only representative of the material reality, the very things themselves not making their appearance to us at all.

no? If they are, then *they* are ideas, and we have gained our point: but if you say they are not, I appeal to any one whether it be sense to assert a colour is like something which is invisible; hard or soft, like something which is intangible; and so of the rest.

9. Some there are who make a distinction betwixt *primary* and *secondary* qualities[1]. By the former they mean extension, figure, motion, rest, solidity or impenetrability, and number; by the latter they denote all other sensible qualities, as colours, sounds, tastes, and so forth. The ideas we have of these last they acknowledge not to be the resemblances of anything existing without the mind, or unperceived; but they will have our ideas of the *primary qualities* to be patterns or images of things which exist without the mind, in an unthinking substance which they call Matter. By Matter, therefore, we are to understand an inert[2], senseless substance, in which extension, figure, and motion do actually subsist. But it is evident, from what we have already shewn, that extension, figure, and motion are only ideas existing in the mind[3], and that an idea can be like nothing but another idea; and that consequently neither they nor their archetypes can exist in an unperceiving substance. Hence, it is plain that the very notion of what is called *Matter* or *corporeal substance*, involves a contradiction in it. [[4]Insomuch that I should not think it necessary to spend more time in exposing its absurdity. But, because the tenet of the existence of Matter[5] seems to have taken so deep a root in the minds of philosophers, and draws after it so many ill consequences, I choose rather to be thought prolix and tedious than omit anything that might conduce to the full discovery and extirpation of that prejudice.]

10. They who assert that figure, motion, and the rest of

[1] He refers especially to Locke, whose account of Matter is accordingly charged with being incoherent.

[2] 'inert.' See the *De Motu*.

[3] 'ideas existing in the mind,' i. e. phenomena of which *some* mind is percipient; which are realised in the sentient experience of a living spirit, human or other.

[4] What follows to the end of the section is omitted in the second edition.

[5] 'the existence of Matter,' i. e. the existence of the material world, regarded as a something that does not need to be perceived in order to be real.

the primary or original qualities[1] do exist without the mind, in unthinking substances, do at the same time acknowledge that colours, sounds, heat, cold, and suchlike secondary qualities, do not; which they tell us are sensations, existing in the mind alone, that depend on and are occasioned by the different size, texture, and motion of the minute particles of matter[2]. This they take for an undoubted truth, which they can demonstrate beyond all exception. Now, if it be certain that those *original* qualities are inseparably united with the other sensible qualities, and not, even in thought, capable of being abstracted from them, it plainly follows that *they* exist only in the mind. But I desire any one to reflect, and try whether he can, by any abstraction of thought, conceive the extension and motion of a body without all other sensible qualities. For my own part, I see evidently that it is not in my power to frame an idea of a body extended and moving, but I must withal give it some colour or other sensible quality, which is acknowledged to exist only in the mind. In short, extension, figure, and motion, abstracted from all other qualities, are inconceivable. Where therefore the other sensible qualities are, there must these be also, to wit, in the mind and nowhere else[3].

11. Again, *great* and *small*, *swift* and *slow*, are allowed to exist nowhere without the mind[4]; being entirely relative, and changing as the frame or position of the organs of sense varies. The extension therefore which exists without the mind is neither great nor small, the motion neither swift nor slow; that is, they are nothing at all. But, say you, they are extension in general, and motion in general. Thus we see how much the tenet of extended moveable substances existing without the mind[4] depends on that strange doctrine of *abstract ideas*. And here I cannot but remark how nearly the vague and indeterminate descrip-

[1] Sometimes called *objective* qualities, because they are supposed to be realised in an abstract objectivity, which Berkeley insists is meaningless.

[2] See Locke's *Essay*, Bk. II, ch. 8, §§ 13, 18; ch. 23, § 11; Bk. IV, ch. 3, § 24–26. Locke suggests this relation between the secondary and the primary qualities of matter only hypothetically.

[3] 'in the mind, and nowhere else,' i. e. perceived or conceived, but in no other manner can they be real or concrete.

[4] 'without the mind,' i. e. independently of all percipient experience.

tion of Matter, or corporeal substance, which the modern philosophers are run into by their own principles, resembles that antiquated and so much ridiculed notion of *materia prima*, to be met with in Aristotle and his followers. Without extension solidity cannot be conceived: since therefore it has been shewn that extension exists not in an unthinking substance, the same must also be true of solidity [1].

12. That *number* is entirely the creature of the mind [2], even though the other qualities be allowed to exist without, will be evident to whoever considers that the same thing bears a different denomination of number as the mind views it with different respects. Thus, the same extension is one, or three, or thirty-six, according as the mind considers it with reference to a yard, a foot, or an inch. Number is so visibly relative, and dependent on men's understanding, that it is strange to think how any one should give it an absolute existence without the mind. We say one book, one page, one line, &c.; all these are equally units, though some contain several of the others. And in each instance, it is plain, the unit relates to some particular combination of ideas *arbitrarily* put together by the mind [3].

13. Unity I know some [4] will have to be a simple or uncompounded idea, accompanying all other ideas into the mind. That I have any such idea answering the word *unity* I do not find; and if I had, methinks I could not miss finding it; on the contrary, it should be the most familiar to my understanding, since it is said to accompany all other ideas, and to be perceived by all the ways of

[1] Extension is thus the distinguishing characteristic of the material world. Geometrical and physical solidity, as well as motion, imply extension.

[2] 'number is the creature of the mind,' i. e. is dependent on being realised in percipient experience. This dependence is here illustrated by the relation of concrete number to the point of view of each mind; as the dependence of the other primary qualities was illustrated by their dependence on the organisation of the percipient. In this, the preceding, and the following sections, Berkeley argues the inconsistency of the abstract reality attributed to the primary qualities with their acknowledged dependence on the necessary conditions of sense perception.

[3] Cf. *New Theory of Vision*, sect. 109.

[4] e.g. Locke, *Essay*, Bk. II, ch. 7, § 7; ch. 16, § 1.

sensation and reflexion. To say no more, it is an *abstract idea.*

14. I shall farther add, that, after the same manner as modern philosophers prove certain sensible qualities to have no existence in Matter, or without the mind, the same thing may be likewise proved of all other sensible qualities whatsoever. Thus, for instance, it is said that heat and cold are affections only of the mind, and not at all patterns of real beings, existing in the corporeal substances which excite them; for that the same body which appears cold to one hand seems warm to another. Now, why may we not as well argue that figure and extension are not patterns or resemblances of qualities existing in Matter; because to the same eye at different stations, or eyes of a different texture at the same station, they appear various, and cannot therefore be the images of anything settled and determinate without the mind? Again, it is proved that sweetness is not really in the sapid thing; because the thing remaining unaltered the sweetness is changed into bitter, as in case of a fever or otherwise vitiated palate. Is it not as reasonable to say that motion is not without the mind; since if the succession of ideas in the mind become swifter, the motion, it is acknowledged, shall appear slower, without any alteration in any external object[1]?

15. In short, let any one consider those arguments which are thought manifestly to prove that colours and tastes exist only in the mind, and he shall find they may with equal force be brought to prove the same thing of extension, figure, and motion. Though it must be confessed this method of arguing does not so much prove that there is no extension or colour in an outward object, as that we do not know by sense which is the true extension or colour of the object. But the arguments foregoing[2] plainly shew it to be impossible that any colour or extension at all, or other sensible quality whatsoever, should exist in an unthinking subject without the mind, or in truth that there should be any such thing as an outward object[3].

[1] 'without any alteration in any external object'—'without any external alteration'—in first edition.

[2] These arguments, founded on the mind-dependent nature of *all* the qualities of matter, are expanded in the *First Dialogue between Hylas and Philonous.*

[3] 'an outward object,' i.e. an object wholly abstract from living Mind.

16. But let us examine a little the received opinion. It is said extension is a *mode* or *accident* of Matter, and that Matter is the *substratum* that supports it. Now I desire that you would explain to me what is meant by Matter's *supporting* extension. Say you, I have no idea of Matter; and therefore cannot explain it. I answer, though you have no positive, yet, if you have any meaning at all, you must at least have a relative idea of Matter; though you know not what it is, yet you must be supposed to know what relation it bears to accidents, and what is meant by its supporting them. It is evident *support* cannot here be taken in its usual or literal sense, as when we say that pillars support a building. In what sense therefore must it be taken? [[1] For my part, I am not able to discover any sense at all that can be applicable to it.]

17. If we inquire into what the most accurate philosophers declare themselves to mean by *material substance*, we shall find them acknowledge they have no other meaning annexed to those sounds but the idea of Being in general, together with the relative notion of its supporting accidents. The general idea of Being appeareth to me the most abstract and incomprehensible of all other; and as for its supporting accidents, this, as we have just now observed, cannot be understood in the common sense of those words: it must therefore be taken in some other sense, but what that is they do not explain. So that when I consider the two parts or branches which make the signification of the words *material substance*, I am convinced there is no distinct meaning annexed to them. But why should we trouble ourselves any farther, in discussing this material *substratum* or support of figure and motion and other sensible qualities? Does it not suppose they have an existence without the mind? And is not this a direct repugnancy, and altogether inconceivable?

18. But, though it were possible that solid, figured, moveable substances may exist without the mind, corresponding to the ideas we have of bodies, yet how is it possible for us to know this? Either we must know it by Sense or by Reason[2]. As for our senses, by them we

[1] This sentence is omitted in the second edition.

[2] 'reason,' i. e. reasoning. It is argued, in this and the next section, that a reality unrealised in percipient experience cannot be proved,

have the knowledge only of our sensations, ideas, or those things that are immediately perceived by sense, call them what you will: but they do not inform us that things exist without the mind, or unperceived, like to those which are perceived. This the materialists themselves acknowledge.—It remains therefore that if we have any knowledge at all of external things, it must be by reason inferring their existence from what is immediately perceived by sense. But ([1] I do not see) what reason can induce us to believe the existence of bodies without the mind, from what we perceive, since the very patrons of Matter themselves do not pretend there is any necessary connexion betwixt them and our ideas? I say it is granted on all hands (and what happens in dreams, frensies, and the like, puts it beyond dispute) that it is possible we might be affected with all the ideas we have now, though no bodies existed without resembling them [2]. Hence it is evident the supposition of external bodies[3] is not necessary for the producing our ideas; since it is granted they are produced sometimes, and might possibly be produced always, in the same order we see them in at present, without their concurrence.

19. But, though we might possibly have all our sensations without them, yet perhaps it may be thought easier to conceive and explain the manner of their production, by supposing external bodies in their likeness rather than otherwise; and so it might be at least probable there are such things as bodies that excite their ideas in our minds. But neither can this be said. For, though we give the materialists their external bodies, they by their own confession are never the nearer knowing how our ideas are produced; since they own themselves unable to comprehend in what manner body can act upon spirit, or how it is possible it should imprint any idea in the mind [4]. Hence

either by our senses or by reasoning.

[1] Omitted in the second edition, and the sentence converted into a question.

[2] But the ideas of which we are cognizant in waking dreams, and dreams of sleep, differ in important characteristics from the external ideas of which we are percipient in sense. Cf. sect. 29-33.

[3] 'external bodies,' i. e. bodies supposed to be real independently of all percipients in the universe.

[4] i. e. they cannot shew how their unintelligible hypothesis of

it is evident the production of ideas or sensations in our minds[1], can be no reason why we should suppose Matter or corporeal substances[2]; since that is acknowledged to remain equally inexplicable with or without this supposition. If therefore it were possible for bodies to exist without the mind, yet to hold they do so must needs be a very precarious opinion; since it is to suppose, without any reason at all, that God has created innumerable beings that are entirely useless, and serve to no manner of purpose.

20. In short, if there were external bodies[3], it is impossible we should ever come to know it; and if there were not, we might have the very same reasons to think there were that we have now. Suppose—what no one can deny possible—an intelligence, without the help of external bodies[3], to be affected with the same train of sensations or ideas that you are, imprinted in the same order and with like vividness in his mind. I ask whether that intelligence hath not all the reason to believe the existence of Corporeal Substances, represented by his ideas, and exciting them in his mind, that you can possibly have for believing the same thing? Of this there can be no question. Which one consideration were enough to make any reasonable person suspect the strength of whatever arguments he may think himself to have, for the existence of bodies without the mind.

21. Were it necessary to add any farther proof against the existence of Matter[4], after what has been said, I could instance several of those errors and difficulties (not to mention impieties) which have sprung from that tenet. It has occasioned numberless controversies and disputes in philosophy, and not a few of far greater moment in religion. But I shall not enter into the detail of them in this place, as well because I think arguments *a posteriori* are unnecessary for confirming what has been, if I mistake not,

Matter accounts for the experience we have, or expect to have; or which we believe other persons have, or to be about to have.

[1] 'the production,' &c., i. e. the fact that we and others have percipient experience.

[2] Mind-dependent Matter he not only allows to exist, but maintains its reality to be intuitively evident.

[3] i. e. bodies existing in abstraction from living percipient spirit.

[4] 'Matter,' i. e. abstract Matter, unrealised in sentient intelligence.

sufficiently demonstrated *a priori*, as because I shall hereafter find occasion to speak somewhat of them.

22. I am afraid I have given cause to think I am needlessly prolix in handling this subject. For, to what purpose is it to dilate on that which may be demonstrated with the utmost evidence in a line or two, to any one that is capable of the least reflexion? It is but looking into your own thoughts, and so trying whether you can conceive it possible for a sound, or figure, or motion, or colour to exist without the mind or unperceived. This easy trial[1] may perhaps make you see that what you contend for is a downright contradiction. Insomuch that I am content to put the whole upon this issue:—If you can but conceive it possible for one extended moveable substance, or in general for any one idea, or anything like an idea, to exist otherwise than in a mind perceiving it[2], I shall readily give up the cause. And, as for all that compages of external bodies you contend for, I shall grant you its existence, though you cannot either give me any reason why you believe it exists, or assign any use to it when it is supposed to exist. I say, the bare possibility of your opinions being true shall pass for an argument that it is so.

23. But, say you, surely there is nothing easier than for me to imagine trees, for instance, in a park, or books existing in a closet, and nobody by to perceive them. I answer, you may so, there is no difficulty in it. But what is all this, I beseech you, more than framing in your mind certain ideas which you call *books* and *trees*, and at the same time omitting to frame the idea of any one that may perceive them? But do not you yourself perceive or think of them all the while? This therefore is nothing to the purpose: it only shews you have the power of imagining, or forming ideas in your mind; but it does not shew that you can conceive it possible the objects of your thought may exist without the mind[3]. To make out this, it is necessary that

[1] The appeal here and elsewhere is to consciousness—directly in each person's experience, and indirectly in that of others.

[2] i. e. otherwise than in the form of an idea or actual appearance presented to our senses.

[3] This implies that the material world may be realised in imagination as well as in sensuous perception, but in a less degree of reality; for reality, he assumes, admits of degrees.

you conceive them existing unconceived or unthought of; which is a manifest repugnancy. When we do our utmost to conceive the existence of external bodies [1], we are all the while only contemplating our own ideas. But the mind, taking no notice of itself, is deluded to think it can and does conceive bodies existing unthought of, or without the mind, though at the same time they are apprehended by, or exist in, itself. A little attention will discover to any one the truth and evidence of what is here said, and make it unnecessary to insist on any other proofs against the existence of *material substance*.

24. [[2] Could men but forbear to amuse themselves with words, we should, I believe, soon come to an agreement in this point.] It is very obvious, upon the least inquiry into our own thoughts, to know whether it be possible for us to understand what is meant by the *absolute existence of sensible objects in themselves*, or *without the mind* [3]. To me it is evident those words mark out either a direct contradiction, or else nothing at all. And to convince others of this, I know no readier or fairer way than to entreat they would calmly attend to their own thoughts; and if by this attention the emptiness or repugnancy of those expressions does appear, surely nothing more is requisite for their conviction. It is on this therefore that I insist, to wit, that the *absolute existence of unthinking things* are words without a meaning, or which include a contradiction. This is what I repeat and inculcate, and earnestly recommend to the attentive thoughts of the reader.

25. All our ideas, sensations, notions [4], or the things which we perceive, by whatsoever names they may be distinguished, are visibly inactive: there is nothing of power or agency

[1] 'to conceive the existence of external bodies,' i. e. to conceive bodies that are not conceived—that are not ideas at all, but which exist in abstraction. To suppose what we conceive to be unconceived, is to suppose a contradiction.

[2] This sentence is omitted in the second edition.

[3] 'The existence of things without mind,' or in the absence of all spiritual life and perception, is what Berkeley argues against, as *meaningless*, if not *contradictory*; not the existence of a material world, when this means the realised order of nature, regulated independently of individual will, and to which our actions must conform if we are to avoid physical pain.

[4] Here again *notion* is undistinguished from *idea*.

included in them. So that one idea or object of thought cannot produce or make any alteration in another [1]. To be satisfied of the truth of this, there is nothing else requisite but a bare observation of our ideas. For, since they and every part of them exist only in the mind, it follows that there is nothing in them but what is perceived: but whoever shall attend to his ideas, whether of sense or reflexion, will not perceive in them any power or activity; there is, therefore, no such thing contained in them. A little attention will discover to us that the very being of an idea implies passiveness and inertness in it; insomuch that it is impossible for an idea to do anything, or, strictly speaking, to be the cause of anything: neither can it be the resemblance or pattern of any active being, as is evident from sect. 8. Whence it plainly follows that extension, figure, and motion cannot be the cause of our sensations. To say, therefore, that these are the effects of powers resulting from the configuration, number, motion, and size of corpuscles [2], must certainly be false.

26. We perceive a continual succession of ideas; some are anew excited, others are changed or totally disappear. There is therefore *some* cause of these ideas, whereon they depend, and which produces and changes them [3]. That this cause cannot be any quality or idea or combination of *ideas*, is clear from the preceding section. It must therefore be a *substance*; but it has been shewn that there is no corporeal or material substance: it remains therefore that the cause of ideas is an incorporeal active substance or Spirit [4].

[1] This and the three following sections argue for the essential impotence of matter, and that, as far as we are concerned, so-called 'natural causes' are only *signs* which foretell the appearance of their so-called effects. The material world is presented to our senses as a procession of orderly, and therefore interpretable, yet in themselves powerless, ideas or phenomena: motion is always an effect, never an originating active cause.

[2] As Locke suggests.

[3] This tacitly presupposes the necessity in reason of the Principle of Causality, or the ultimate need for an efficient cause of every change. To determine the sort of Causation that constitutes and pervades the universe is the aim of his philosophy.

[4] In other words, the material world is not only real in and through percipient spirit, but the changing forms which its phenomena assume, in the natural evolution, are the issue of the perpetual activity of in-dwelling Spirit. The argument in this section requires a deeper criticism of its premisses.

27. A Spirit is one simple, undivided, active being—as it perceives ideas it is called the *understanding*, and as it produces or otherwise operates about them it is called the *will*. Hence there can be no *idea* formed of a soul or spirit; for all ideas whatever, being passive and inert (vid. sect. 25), they cannot represent unto us, by way of image or likeness, that which acts. A little attention will make it plain to any one, that to have an idea which shall be *like* that active Principle of motion and change of ideas is absolutely impossible. Such is the nature of Spirit, or that which acts, that it cannot be of itself perceived, but only by the effects which it produceth [1]. If any man shall doubt of the truth of what is here delivered, let him but reflect and try if he can frame the idea of any power or active being; and whether he has ideas of two principal powers, marked by the names *will* and *understanding*, distinct from each other, as well as from a third idea of Substance or Being in general, with a relative notion of its supporting or being the subject of the aforesaid powers—which is signified by the name *soul* or *spirit*. This is what some hold; but, so far as I can see, the words *will*, [2 *understanding, mind,*] *soul*, *spirit*, do not stand for different ideas, or, in truth, for any idea at all, but for something which is very different from ideas, and which, being an agent, cannot be like unto, or represented by, any idea whatsoever. [3 Though it must be owned at the same time that we have some *notion* of soul, spirit, and the operations of the mind, such as willing, loving, hating—inasmuch as we know or understand the meaning of these words.]

28. I find I can excite ideas [4] in my mind at pleasure, and vary and shift the scene as oft as I think fit. It is no more than *willing*, and straightway this or that idea arises in my fancy; and by the same power it is obliterated and

[1] In other words, an agent cannot, as such, be perceived or imagined, though its effects can. The spiritual term *agent* is not meaningless; yet we have no *sensuous idea* of its meaning.

[2] Omitted in second edition.

[3] This sentence is not contained in the first edition. It is remarkable for first introducing the term *notion*, to signify *idealess meaning*, as in the words soul, active power, &c. Here he says that 'the operations of the mind' belong to notions, while, in sect. 1, he speaks of '*ideas* perceived by attending to the "operations" of the mind.'

[4] 'ideas,' i. e. fancies of imagination; as distinguished from the more real ideas or phenomena that present themselves objectively to our senses.

makes way for another. This making and unmaking of ideas doth very properly denominate the mind active. Thus much is certain and grounded on experience: but when we talk of unthinking agents, or of exciting ideas exclusive of volition, we only amuse ourselves with words[1].

29. But, whatever power I may have over my own thoughts, I find the ideas actually perceived by Sense have not a like dependence on *my* will. When in broad daylight I open my eyes, it is not in my power to choose whether I shall see or no, or to determine what particular objects shall present themselves to my view: and so likewise as to the hearing and other senses; the ideas imprinted on them are not creatures of *my* will[2]. There is therefore some other Will or Spirit that produces them.

30. The ideas of Sense are more strong, lively, and distinct than those of the Imagination[3]; they have likewise a steadiness, order, and coherence, and are not excited at random, as those which are the effects of human wills often are, but in a regular train or series—the admirable connexion whereof sufficiently testifies the wisdom and benevolence of its Author. Now the set rules, or established methods, wherein the Mind we depend on excites in us the ideas of Sense, are called *the laws of nature*; and these we learn by experience, which teaches us that such and such ideas are attended with such and such other ideas, in the ordinary course of things.

31. This gives us a sort of foresight, which enables us to regulate our actions for the benefit of life. And without this we should be eternally at a loss: we could not know

[1] With Berkeley the world of external ideas is distinguished from Spirit by its essential passivity. Active power is with him the essence of Mind, distinguishing me from the changing ideas of which I am percipient. We must not attribute free agency to phenomena presented to our senses.

[2] In this and the four following sections, Berkeley mentions *marks* by which the ideas or phenomena that present themselves to the senses may be distinguished from all other ideas, in consequence of which they may be termed 'external,' while those of feeling and imagination are wholly subjective or individual.

[3] This mark — the superior strength and liveliness of the ideas or phenomena that are presented to the senses—was afterwards noted by Hume. See *Inquiry concerning Human Understanding*, sect. II.

how to act anything that might procure us the least pleasure, or remove the least pain of sense. That food nourishes, sleep refreshes, and fire warms us; that to sow in the seed-time is the way to reap in the harvest; and in general that to obtain such or such ends, such or such means are conducive—all this we know, not by discovering any *necessary connexion* between our ideas, but only by the observation of the *settled laws* of nature; without which we should be all in uncertainty and confusion, and a grown man no more know how to manage himself in the affairs of life than an infant just born [1].

32. And yet this consistent uniform working, which so evidently displays the Goodness and Wisdom of that Governing Spirit whose Will constitutes the laws of nature, is so far from leading our thoughts to Him, that it rather sends them wandering after second causes [2]. For, when we perceive certain ideas of Sense constantly followed by other ideas, and we know this is not of our own doing, we forthwith attribute power and agency to the ideas themselves, and make one the cause of another, than which nothing can be more absurd and unintelligible. Thus, for example, having observed that when we perceive by sight a certain round luminous figure, we at the same time perceive by touch the idea or sensation called heat, we do from thence conclude the sun to be the *cause* of heat. And in like manner perceiving the motion and collision of bodies to be attended with sound, we are inclined to think the latter the *effect* of the former [3].

33. The ideas imprinted on the Senses by the Author of nature are called *real things*: and those excited in the imagination, being less regular, vivid, and constant, are more properly termed *ideas* or *images of* things, which

[1] Berkeley here and always insists on the *arbitrary* character of the 'settled laws' of change in the world, as contrasted with 'necessary connexions' discovered in mathematics. The material world is thus virtually an interpretable natural language, constituted in what, at our point of view, is *arbitrariness* or *contingency*.

[2] Under this conception of the universe, 'second causes' are *divinely established signs* of impending changes, and are only metaphorically called 'causes.'

[3] So Schiller, in *Don Carlos*, Act III, where he represents sceptics as failing to see the God who veils Himself in everlasting laws. But in truth God is eternal law or order vitalised and moralised.

they copy and represent. But then our *sensations*, be they never so vivid and distinct, are nevertheless ideas[1]: that is, they exist in the mind, or are perceived by it, as truly as the ideas of its own framing. The ideas of Sense are allowed to have more reality[2] in them, that is, to be more strong, orderly, and coherent than the creatures of the mind; but this is no argument that they exist without the mind. They are also less dependent on the spirit or thinking substance which perceives them, in that they are excited by the will of another and more powerful Spirit: yet still they are *ideas*: and certainly no idea, whether faint or strong, can exist otherwise than in a mind perceiving it[3].

34. Before we proceed any farther it is necessary we spend some time in answering Objections[4] which may probably be made against the Principles we have hitherto laid down. In doing of which, if I seem too prolix to those of quick apprehensions, I desire I may be excused, since all men do not equally apprehend things of this nature; and I am willing to be understood by every one.

First, then, it will be objected that by the foregoing principles all that is real and substantial in nature is banished out of the world, and instead thereof a chimerical scheme of *ideas* takes place. All things that exist exist only in the mind; that is, they are purely notional. What therefore becomes of the sun, moon, and stars? What must we think of houses, rivers, mountains, trees, stones; nay, even of our own bodies? Are all these but so many

[1] '*sensations*,' with Berkeley, are not mere feelings, but in a sense external appearances.

[2] '*more* reality.' This implies that reality admits of degrees, and that the difference between the phenomena presented to the senses and those which are only imagined is a difference in degree of reality.

[3] In the preceding sections, two relations should be carefully distinguished—that of the material world to percipient mind, in which it becomes *real*; and that between changes in the world and spiritual agency. These are Berkeley's two leading Principles. The first conducts to and vindicates the second—inadequately, however, apart from explication of their root in moral reason. The former gives a relation *sui generis*. The latter gives our only example of active causality—the natural order of phenomena being the outcome of the causal energy of intending Will.

[4] Sect. 34-84 contain Berkeley's answers to supposed *objections* to the foregoing Principles concerning Matter and Spirit in their mutual relations.

chimeras and illusions on the fancy?—To all which, and whatever else of the same sort may be objected, I answer, that by the Principles premised we are not deprived of any one thing in nature. Whatever we see, feel, hear, or any wise conceive or understand, remains as secure as ever, and is as real as ever. There is a *rerum natura*, and the distinction between realities and chimeras retains its full force. This is evident from sect. 29, 30, and 33, where we have shewn what is meant by *real things*, in opposition to *chimeras* or *ideas of our own framing*; but then they both equally exist in the mind, and in that sense [1] are alike *ideas*.

35. I do not argue against the existence of any one thing that we can apprehend, either by sense or reflection. That the things I see with my eyes and touch with my hands do exist, really exist, I make not the least question. The only thing whose existence we deny is that which *philosophers* call Matter or corporeal substance. And in doing of this there is no damage done to the rest of mankind, who, I dare say, will never miss it. The Atheist indeed will want the colour of an empty name to support his impiety; and the Philosophers may possibly find they have lost a great handle for trifling and disputation. [[2] But that is all the harm that I can see done.]

36. If any man thinks this detracts from the existence or reality of things, he is very far from understanding what hath been premised in the plainest terms I could think of. Take here an abstract of what has been said:—There are spiritual substances, minds, or human souls, which will or excite ideas [3] in themselves at pleasure; but these are faint, weak, and unsteady in respect of others they perceive by sense: which, being impressed upon them according to certain rules or laws of nature, speak themselves the effects of a Mind more powerful and wise than human spirits [4]. These latter are said to have *more reality* [5]

[1] To be an 'idea' is, with Berkeley, to be the imaginable object of a percipient spirit. But he does not define precisely the relation of ideas to mind. 'Existence in mind' is existence *in this relation*. His question (which he determines in the negative) is, the possibility of concrete phenomena, naturally presented to sense, *yet out of all relation to living mind*.

[2] Omitted in second edition.

[3] i. e. of imagination. Cf. sect. 28–30.

[4] Cf. sect. 29.

[5] 'more reality.' This again implies that reality admits of degrees.

in them than the former;—by which is meant that they are more affecting, orderly, and distinct, and that they are not fictions of the mind perceiving them [1]. And in this sense the sun that I see by day is the real sun, and that which I imagine by night is the idea of the former. In the sense here given of *reality*, it is evident that every vegetable, star, mineral, and in general each part of the mundane system, is as much a *real being* by our principles as by any other. Whether others mean anything by the term *reality* different from what I do, I entreat them to look into their own thoughts and see.

37. It will be urged that thus much at least is true, to wit, that we take away all *corporeal substances*. To this my answer is, that if the word *substance* be taken in the vulgar sense, for a *combination* of sensible qualities, such as extension, solidity, weight, and the like—this we cannot be accused of taking away: but if it be taken in a philosophic sense, for the support of accidents or qualities without the mind—then indeed I acknowledge that we take it away, if one may be said to take away that which never had any existence, not even in the imagination [2].

38. But after all, say you, it sounds very harsh to say we eat and drink ideas, and are clothed with ideas. I acknowledge it does so—the word *idea* not being used in common discourse to signify the several combinations of sensible qualities which are called *things*; and it is certain that any expression which varies from the familiar use of language will seem harsh and ridiculous. But this doth not concern the truth of the proposition, which in other words is no more than to say, we are fed and clothed with those things which we perceive immediately by our senses [3]. The hardness or softness, the colour, taste, warmth, figure, and suchlike qualities, which combined together [4] constitute the several sorts of

What is perceived in sense is more real than what is imagined, and eternal realities are more deeply real than the transitory things of sense.

[1] Cf. sect. 33. 'Not fictions,' i. e. they are presentative, and therefore cannot misrepresent.

[2] With Berkeley *substance* is either (*a*) active reason, i. e. spirit—substance proper, or (*b*) an aggregate of sense-phenomena, called a 'sensible thing'—substance conventionally and superficially.

[3] And which, because realised in living perception, are called *ideas*—to remind us that reality is attained in and through percipient mind.

[4] 'combined together,' i. e. in the

victuals and apparel, have been shewn to exist only in the mind that perceives them: and this is all that is meant by calling them *ideas*; which word, if it was as ordinarily used as *thing*, would sound no harsher nor more ridiculous than it. I am not for disputing about the propriety, but the truth of the expression. If therefore you agree with me that we eat and drink and are clad with the immediate objects of sense, which cannot exist unperceived or without the mind, I shall readily grant it is more proper or conformable to custom that they should be called *things* rather than *ideas*.

39. If it be demanded why I make use of the word *idea*, and do not rather in compliance with custom call them *things*; I answer, I do it for two reasons:—First, because the term *thing*, in contradistinction to *idea*, is generally supposed to denote somewhat existing without the mind: Secondly, because *thing* hath a more comprehensive signification than *idea*, including spirits, or thinking things [1], as well as ideas. Since therefore the objects of sense exist only in the mind, and are withal thoughtless and inactive, I chose to mark them by the word *idea*; which implies those properties [2].

40. But, say what we can, some one perhaps may be apt to reply, he will still believe his senses, and never suffer any arguments, how plausible soever, to prevail over the certainty of them. Be it so; assert the evidence of sense as high as you please, we are willing to do the same. That what I see, hear, and feel doth exist, that is to say, is perceived by me, I no more doubt than I do of my own being. But I do not see how the testimony of sense can be alleged as a proof for the existence of anything which is *not* perceived by sense. We are not for having any man turn sceptic and disbelieve his senses; on the contrary, we give them all the stress and assurance imaginable; nor are there

form of 'sensible things,' according to natural laws. Cf. sect. 33.

[1] 'thinking things'—more appropriately called *persons*.

[2] Berkeley uses the word idea to mark the fact, that sensible things are real only as they manifest themselves in the form of passive objects, presented to sense-percipient mind; but he does not, as popularly supposed, regard 'sensible things' as created and regulated by the activity of his own individual mind. They are perceived, but are neither created nor regulated, by the individual percipient, and are thus *practically external* to each person.

any principles more opposite to Scepticism than those we have laid down, as shall be hereafter clearly shewn [1].

41. *Secondly*, it will be objected that there is a great difference betwixt real fire for instance, and the idea of fire, betwixt dreaming or imagining oneself burnt, and actually being so. [[2] If you suspect it to be only the idea of fire which you see, do but put your hand into it and you will be convinced with a witness.] This and the like may be urged in opposition to our tenets.—To all which the answer is evident from what hath been already said [3]; and I shall only add in this place, that if real fire be very different from the idea of fire, so also is the real pain that it occasions very different from the idea of the same pain, and yet nobody will pretend that real pain either is, or can possibly be, in an unperceiving thing, or without the mind, any more than its idea [4].

42. *Thirdly*, it will be objected that we see things actually without or at a distance from us, and which consequently do not exist in the mind; it being absurd that those things which are seen at the distance of several miles should be as near to us as our own thoughts [5].—In answer to this, I desire it may be considered that in a dream we do oft perceive things as existing at a great distance off, and yet for all that, those things are acknowledged to have their existence only in the mind.

43. But, for the fuller clearing of this point, it may be worth while to consider how it is that we perceive distance, and things placed at a distance, by sight. For, that we should in truth *see* external space, and bodies actually existing in it, some nearer, others farther off, seems to carry

[1] Cf. sect. 87–91, against the scepticism which originates in alleged fallacy of sense.

[2] Omitted in second edition.

[3] It is always to be remembered that with Berkeley ideas or phenomena presented to sense are *themselves* the real things, whilst ideas of imagination are representative (or misrepresentative).

[4] Here feelings of pleasure or pain are spoken of, without qualification, as in like relation to living mind as sensible things or ideas are.

[5] That the ideas of sense should be seen 'at a distance of several miles' seems not inconsistent with their being dependent on a percipient, if ambient space is *itself* (as Berkeley asserts) dependent on percipient experience. Cf. sect. 67.

with it some opposition to what hath been said of their existing nowhere without the mind. The consideration of this difficulty it was that gave birth to my *Essay towards a New Theory of Vision*, which was published not long since[1]. Wherein it is shewn that distance or outness is neither immediately of itself perceived by sight[2], nor yet apprehended or judged of by lines and angles, or anything that hath a necessary connexion with it[3]; but that it is only suggested to our thoughts by certain visible ideas, and sensations attending vision, which in their own nature have no manner of similitude or relation either with distance or things placed at a distance[4]; but, by a connexion taught us by experience, they come to signify and suggest them to us, after the same manner that words of any language suggest the ideas they are made to stand for[5]. Insomuch that a man born blind, and afterwards made to see, would not, at first sight, think the things he saw to be without his mind, or at any distance from him. See sect. 41 of the forementioned treatise.

44. The ideas of sight and touch make two species entirely distinct and heterogeneous[6]. The former are marks and prognostics of the latter. That the proper objects of sight neither exist without the mind, nor are the images of external things, was shewn even in that treatise[7]. Though throughout the same the contrary be supposed true of *tangible objects*;—not that to suppose that vulgar error was necessary for establishing the notion therein laid down, but because it was beside my purpose to examine and refute it, in a discourse concerning *Vision*. So that in strict truth the ideas of sight[8], when we apprehend by them distance, and things placed at a distance, do not suggest or mark out to us things actually existing at a distance, but only admonish us what ideas of touch[9] will be imprinted in our minds at such and such distances of time, and in consequence of such or such actions. It is, I say, evident, from

[1] In the preceding year.
[2] *Essay*, sect. 2.
[3] Ibid. sect. 11–15.
[4] Ibid. sect. 16–28.
[5] Ibid. sect. 51.
[6] Ibid. sect. 47–49, 121–141.
[7] Ibid. sect. 43.
[8] i. e. what we are *immediately* percipient of in seeing.
[9] Touch is here and elsewhere taken in its wide meaning, and includes our muscular and locomotive experience, all which Berkeley included in the 'tactual' meaning of distance.

what has been said in the foregoing parts of this Treatise, and in sect. 147 and elsewhere of the Essay concerning Vision, that visible ideas are the Language whereby the Governing Spirit on whom we depend informs us what tangible ideas he is about to imprint upon us, in case we excite this or that motion in our own bodies. But for a fuller information in this point I refer to the Essay itself.

45. *Fourthly*, it will be objected that from the foregoing principles it follows things are every moment annihilated and created anew. The objects of sense exist only when they are perceived: the trees therefore are in the garden, or the chairs in the parlour, no longer than while there is somebody by to perceive them. Upon shutting my eyes all the furniture in the room is reduced to nothing, and barely upon opening them it is again created [1].—In answer to all which, I refer the reader to what has been said in sect. 3, 4, &c.; and desire he will consider whether he means anything by the actual existence of an idea distinct from its being perceived. For my part, after the nicest inquiry I could make, I am not able to discover that anything else is meant by those words; and I once more entreat the reader to sound his own thoughts, and not suffer himself to be imposed on by words. If he can conceive it possible either for his ideas or their archetypes to exist without being perceived, then I give up the cause. But if he cannot, he will acknowledge it is unreasonable for him to stand up in defence of he knows not what, and pretend to charge on me as an absurdity, the not assenting to those propositions which at bottom have no meaning in them [2].

[1] To explain the condition of sensible things *during the intervals of our perception of them*, consistently with the belief of all sane persons regarding the material world, is a challenge which has been often addressed to the advocates of ideal Realism. According to Berkeley, there are no intervals in the existence of sensible things. They are permanently perceivable, under the laws of nature, though not always perceived by this, that or the other individual percipient. Moreover they always exist *really* in the Divine Idea, and *potentially*, in relation to finite minds, in the Divine Will.

[2] Berkeley allows to bodies unperceived by me potential, but (for me) not real existence. When I say a body exists thus conditionally, I mean that if, in the light, I open my eyes, I shall see it, and that if I move my hand, I must feel it.

46. It will not be amiss to observe how far the received principles of philosophy are themselves chargeable with those pretended absurdities. It is thought strangely absurd that upon closing my eyelids all the visible objects around me should be reduced to nothing; and yet is not this what philosophers commonly acknowledge, when they agree on all hands that light and colours, which alone are the proper and immediate objects of sight, are mere sensations that exist no longer than they are perceived? Again, it may to some perhaps seem very incredible that things should be every moment creating; yet this very notion is commonly taught in the schools. For the Schoolmen, though they acknowledge the existence of Matter [1], and that the whole mundane fabric is framed out of it, are nevertheless of opinion that it cannot subsist without the divine conservation; which by them is expounded to be a continual creation [2].

47. Farther, a little thought will discover to us that, though we allow the existence of Matter or corporeal substance, yet it will unavoidably follow, from the principles which are now generally admitted, that the particular bodies, of what kind soever, do none of them exist whilst they are not perceived. For, it is evident, from sect. 11 and the following sections, that the Matter philosophers contend for is an incomprehensible Somewhat, which hath

[1] i.e. unperceived material substance.

[2] Berkeley remarks, in a letter to the American Samuel Johnson, that 'those who have contended for a material world have yet acknowledged that *natura naturans* (to use the language of the Schoolmen) is God; and that the Divine conservation of things is equipollent to, and in fact the same thing with, a continued repeated creation;—in a word, that conservation and creation differ only as the *terminus a quo*. These are the common opinions of Schoolmen; and Durandus, who held the world to be a machine, like a clock made up and put in motion by God, but afterwards continued to go of itself, was therein particular, and had few followers. The very poets teach a doctrine not unlike the Schools—*mens agitat molem* (Virgil, Æneid, VI). The Stoics and Platonists are everywhere full of the same notion. I am not therefore singular in this point itself, so much as in my way of proving it.' Cf. *Alciphron*, Dial. IV. sect. 14; *Vindication of New Theory of Vision*, sect. 8, 17, &c.; *Siris*, *passim*, but especially in the latter part. See also *Correspondence between Clarke and Leibniz* (1717). Is it not possible that the universe of things and persons is in continuous natural creation, unbeginning and unending?

none of those particular qualities whereby the bodies falling under our senses are distinguished one from another. But, to make this more plain, it must be remarked that the infinite divisibility of Matter is now universally allowed, at least by the most approved and considerable philosophers, who on the received principles demonstrate it beyond all exception. Hence, it follows there is an infinite number of parts in each particle of Matter which are not perceived by sense[1]. The reason therefore that any particular body seems to be of a finite magnitude, or exhibits only a finite number of parts to sense, is, not because it contains no more, since in itself it contains an infinite number of parts, but because the sense is not acute enough to discern them. In proportion therefore as the sense is rendered more acute, it perceives a greater number of parts in the object, that is, the object appears greater; and its figure varies, those parts in its extremities which were before unperceivable appearing now to bound it in very different lines and angles from those perceived by an obtuser sense. And at length, after various changes of size and shape, when the sense becomes infinitely acute, the body shall seem infinite. During all which there is no alteration in the body, but only in the sense. Each body therefore, considered in itself, is infinitely extended, and consequently void of all shape and figure. From which it follows that, though we should grant the existence of Matter to be never so certain, yet it is withal as certain, the materialists themselves are by their own principles forced to acknowledge, that neither the particular bodies perceived by sense, nor anything like them, exists without the mind. Matter, I say, and each particle thereof, is according to them infinite and shapeless; and it is the mind that frames all that variety of bodies which compose the visible world, any one whereof does not exist longer than it is perceived.

48. But, after all, if we consider it, the objection proposed in sect. 45 will not be found reasonably charged on the Principles we have premised, so as in truth to make any objection at all against our notions. For, though we hold indeed the objects of sense to be nothing else but

[1] Cf. sect 123-132.

ideas which cannot exist unperceived, yet we may not hence conclude they have no existence except only while they are perceived by *us*; since there may be some other spirit that perceives them though we do not. Wherever bodies are said to have no existence without the mind, I would not be understood to mean this or that particular mind, but all minds whatsoever. It does not therefore follow from the foregoing Principles that bodies are annihilated and created every moment, or exist not at all during the intervals between *our* perception of them.

49. *Fifthly*, it may perhaps be objected that if extension and figure exist only in the mind, it follows that the mind is extended and figured; since extension is a mode or attribute which (to speak with the Schools) is predicated of the subject in which it exists.—I answer, those qualities are in the mind only as they are perceived by it;—that is, not by way of *mode* or *attribute*, but only by way of *idea*[1]. And it no more follows the soul or mind is extended, because extension exists in it alone, than it does that it is red or blue, because those colours are on all hands acknowledged to exist in it, and nowhere else. As to what philosophers say of subject and mode, that seems very groundless and unintelligible. For instance, in this proposition 'a die is hard, extended, and square,' they will have it that the word *die* denotes a subject or substance, distinct from the hardness, extension, and figure which are predicated of it, and in which they exist. This I cannot comprehend: to me a die seems to be nothing distinct from those things which are termed its modes or accidents. And, to say a die is hard, extended, and

[1] He distinguishes 'idea' from 'mode or attribute.' With Berkeley, the 'substance' of *matter* (if the term is still to be applied to sensible things) is the naturally constituted aggregate of phenomena of which each particular thing consists. Now extension, and the other qualities of sensible things, are not, Berkeley argues, 'in mind' either (*a*) according to the abstract relation of substance and attribute of which philosophers speak; nor (*b*) as one idea or phenomenon is related to another idea or phenomenon, in the natural aggregation of sense-phenomena which constitute, with him, the *substance* of a *material* thing. Mind and its 'ideas' are, on the contrary, related as percipient to perceived—in whatever 'otherness' that altogether *sui generis* relation implies.

square is not to attribute those qualities to a subject distinct from and supporting them, but only an explication of the meaning of the word *die*.

50. *Sixthly*, you will say there have been a great many things explained by matter and motion; take away these and you destroy the whole corpuscular philosophy, and undermine those mechanical principles which have been applied with so much success to account for the phenomena. In short, whatever advances have been made, either by ancient or modern philosophers, in the study of nature do all proceed on the supposition that corporeal substance or Matter doth really exist.—To this I answer that there is not any one phenomenon explained on that supposition which may not as well be explained without it, as might easily be made appear by an induction of particulars. To explain the phenomena, is all one as to shew why, upon such and such occasions, we are affected with such and such ideas. But how Matter[1] should operate on a Spirit, or produce any idea in it, is what no philosopher will pretend to explain; it is therefore evident there can be no use of Matter[1] in natural philosophy. Besides, they who attempt to account for things do it, not by corporeal substance, but by figure, motion, and other qualities; which are in truth no more than mere ideas, and therefore cannot be the cause of anything, as hath been already shewn. See sect. 25.

51. *Seventhly*, it will upon this be demanded whether it does not seem absurd to take away natural causes[2], and ascribe everything to the immediate operation of spirits? We must no longer say upon these principles that fire heats, or water cools, but that a spirit heats, and so forth. Would not a man be deservedly laughed at, who should talk after this manner?—I answer, he would so: in such things we ought to think with the learned, and speak with the vulgar. They who to demonstration are convinced of the

[1] 'Matter,' i. e. abstract material Substance, as distinguished from the concrete things that are realised in living perceptions.

[2] 'take away natural causes,' i. e. empty the material world of all originative power, and refer the supposed powers of bodies to the constant and omnipresent agency of God.

truth of the Copernican system do nevertheless say 'the sun rises,' 'the sun sets,' or 'comes to the meridian'; and if they affected a contrary style in common talk it would without doubt appear very ridiculous. A little reflection on what is here said will make it manifest that the common use of language would receive no manner of alteration or disturbance from the admission of our tenets [1].

52. In the ordinary affairs of life, any phrases may be retained, so long as they excite in us proper sentiments, or dispositions to act in such a manner as is necessary for our well-being, how false soever they may be if taken in a strict and speculative sense. Nay, this is unavoidable, since, propriety being regulated by custom, language is suited to the received opinions, which are not always the truest. Hence it is impossible—even in the most rigid, philosophic reasonings—so far to alter the bent and genius of the tongue we speak as never to give a handle for cavillers to pretend difficulties and inconsistencies. But, a fair and ingenuous reader will collect the sense from the scope and tenor and connexion of a discourse, making allowances for those inaccurate modes of speech which use has made inevitable.

53. As to the opinion that there are no corporeal causes, this has been heretofore maintained by some of the Schoolmen, as it is of late by others among the modern philosophers; who though they allow Matter to exist, yet will have God alone to be the immediate efficient cause of all things [2]. These men saw that amongst all the objects of sense there was none which had any power or activity included in it; and that by consequence this was likewise true of whatever bodies

[1] Some philosophers have treated the relation of Matter to Mind in *perception* as one of cause and effect. This, according to Berkeley, is an illegitimate analysis, which creates a fictitious duality. On his New Principles, philosophy is based on a recognition of the fact, that perception is neither the cause nor the effect of its object, but in a relation to it that is altogether *sui generis*.

[2] He refers to Descartes, and perhaps Geulinx and Malebranche, who, while they argued for material *substance*, denied the *causal efficiency* of sensible things. Berkeley's new Principles are presented as the foundation in reason for this denial, and for the essential spirituality of all active power in the universe.

they supposed to exist without the mind, like unto the immediate objects of sense. But then, that they should suppose an innumerable multitude of created beings, which they acknowledge are not capable of producing any one effect in nature, and which therefore are made to no manner of purpose, since God might have done everything as well without them—this I say, though we should allow it possible, must yet be a very unaccountable and extravagant supposition [1].

54. In the *eighth* place, the universal concurrent assent of mankind may be thought by some an invincible argument in behalf of Matter, or the existence of external things [2]. Must we suppose the whole world to be mistaken? And if so, what cause can be assigned of so widespread and predominant an error?—I answer, first, that, upon a narrow inquiry, it will not perhaps be found so many as is imagined do really believe the existence of Matter or things without the mind [3]. Strictly speaking, to believe that which involves a contradiction, or has no meaning in it [4], is impossible; and whether the foregoing expressions are not of that sort, I refer it to the impartial examination of the reader. In one sense, indeed, men may be said to believe that Matter exists; that is, they act as if the immediate cause of their sensations, which affects them every moment, and is so nearly present to them, were some senseless unthinking being. But, that they should clearly apprehend any meaning marked by those words, and form thereof a settled speculative opinion, is what I am not able to conceive. This is not the only instance wherein men impose upon themselves, by imagining they believe those propositions which they have often heard, though at bottom they have no meaning in them.

[1] On the principle, 'Entia non sunt multiplicanda præter necessitatem.'

[2] 'external things,' i.e. things in the abstract.

[3] That the unreflecting part of mankind should have a confused conception of what should be meant by the *external reality* of matter is not wonderful. It is the office of philosophy to improve their conception, making it deeper and truer, and this was Berkeley's preliminary task; as a mean for shewing the impotence of the things of sense, and conclusive evidence of omnipresent spiritual activity.

[4] Cf. sect. 4, 9, 15, 17, 22, 24.

55. But secondly, though we should grant a notion to be never so universally and stedfastly adhered to, yet this is but a weak argument of its truth to whoever considers what a vast number of prejudices and false opinions are everywhere embraced with the utmost tenaciousness, by the unreflecting (which are the far greater) part of mankind. There was a time when the antipodes and motion of the earth were looked upon as monstrous absurdities even by men of learning: and if it be considered what a small proportion they bear to the rest of mankind, we shall find that at this day those notions have gained but a very inconsiderable footing in the world.

56. But it is demanded that we assign a cause of this prejudice, and account for its obtaining in the world. To this I answer, that men knowing they perceived several ideas, whereof they themselves were not the authors [1], as not being excited from within, nor depending on the operation of their wills, this made them maintain *those* ideas or objects of perception, had an existence independent of and without the mind, without ever dreaming that a contradiction was involved in those words. But, philosophers having plainly seen that the immediate objects of perception do not exist without the mind, they in some degree corrected the mistake of the vulgar [2]; but at the same time run into another, which seems no less absurd, to wit, that there are certain objects really existing without the mind, or having a subsistence distinct from being perceived, of which our ideas are only images or resemblances, imprinted by those objects on the mind [3]. And this notion of the philosophers owes its origin to the same cause with the former, namely, their being conscious that *they* were not the authors of their own sensations; which

[1] i. e. their *sense-ideas*.—Though sense-ideas, i. e. the appearances presented to the senses, are independent of the *will* of the individual percipient, it does not follow that they are independent of *all perception*, so that they can be real in the absence of realising percipient experience. Cf. sect. 29-33.

[2] By shewing that what we are percipient of in sense must be *idea*, or that it is immediately known by us only as sensuous appearance.

[3] i. e. 'imprinted' by unperceived Matter, which, on this dogma of a representative sense-perception, was assumed to exist *behind* the perceived ideas, and to be the *cause* of their appearance. Cf. *Third Dialogue between Hylas and Philonous*.

they evidently knew were imprinted from without, and which therefore must have *some* cause, distinct from the minds on which they are imprinted.

57. But why they should suppose the ideas of sense to be excited in us by things in their likeness, and not rather have recourse to *Spirit*, which alone can act, may be accounted for. First, because they were not aware of the repugnancy there is, as well in supposing things like unto our ideas existing without, as in attributing to them power or activity. Secondly, because the Supreme Spirit which excites those ideas in our minds, is not marked out and limited to our view by any particular finite collection of sensible ideas, as human agents are by their size, complexion, limbs, and motions. And thirdly, because His operations are regular and uniform. Whenever the course of nature is interrupted by a miracle, men are ready to own the presence of a Superior Agent. But, when we see things go on in the ordinary course, they do not excite in us any reflexion; their order and concatenation, though it be an argument of the greatest wisdom, power, and goodness in their Creator, is yet so constant and familiar to us, that we do not think them the immediate effects of a *Free Spirit*; especially since inconsistency and mutability in acting, though it be an imperfection, is looked on as a mark of *freedom* [1].

58. *Tenthly*, it will be objected that the notions we advance are inconsistent with several sound truths in philosophy and mathematics. For example, the motion of the earth is now universally admitted by astronomers as a truth grounded on the clearest and most convincing reasons. But, on the foregoing Principles, there can be no such thing. For, motion being only an idea, it follows that if it be not perceived it exists not: but the motion of the earth is not perceived by sense.—I answer, That tenet, if rightly understood, will be found to agree with the Principles we have premised: for, the question

[1] Hence the difficulty men have in recognising that Divine Reason and Will, and Law in Nature, are coincident. But the advance of scientific discovery of the laws which express Divine Will in nature, instead of narrowing, extends our knowledge of God. And *divine* or *absolutely reasonable* 'arbitrariness' is not caprice.

whether the earth moves or no amounts in reality to no more than this, to wit, whether we have reason to conclude, from what has been observed by astronomers, that if we were placed in such and such circumstances, and such or such a position and distance both from the earth and sun, we should perceive the former to move among the choir of the planets, and appearing in all respects like one of them: and this, by the established rules of nature, which we have no reason to mistrust, is reasonably collected from the phenomena.

59. We may, from the experience we have had of the train and succession of ideas[1] in our minds, often make, I will not say uncertain conjectures, but sure and well-grounded predictions concerning the ideas[1] we shall be affected with pursuant to a great train of actions; and be enabled to pass a right judgment of what would have appeared to us, in case we were placed in circumstances very different from those we are in at present. Herein consists the knowledge of nature, which may preserve its use and certainty very consistently with what hath been said. It will be easy to apply this to whatever objections of the like sort may be drawn from the magnitude of the stars, or any other discoveries in astronomy or nature.

60. In the *eleventh* place, it will be demanded to what purpose serves that curious organization of plants, and the animal mechanism in the parts of animals. Might not vegetables grow, and shoot forth leaves and blossoms, and animals perform all their motions, as well without as with all that variety of internal parts so elegantly contrived and put together;—which, being ideas, have nothing powerful or operative in them, nor have any *necessary* connexion with the effects ascribed to them? If it be a Spirit that immediately produces every effect by a *fiat*, or act of his will[2], we must think all that is fine and artificial in the works, whether of man or nature,

[1] 'ideas,' i.e. ideas of *sense*. This 'experience' implies an association of sensuous ideas, according to the divine or reasonable order of nature.

[2] Cf. sect. 25–33, and other passages in Berkeley's writings in which he insists upon the *arbitrariness*—divine or reasonable—of the natural laws, and sense-symbolism.

to be made in vain. By this doctrine, though an artist hath made the spring and wheels, and every movement of a watch, and adjusted them in such a manner as he knew would produce the motions he designed; yet he must think all this done to no purpose, and that it is an Intelligence which directs the index, and points to the hour of the day. If so, why may not the Intelligence do it, without *his* being at the pains of making the movements and putting them together? Why does not an empty case serve as well as another? And how comes it to pass, that whenever there is any fault in the going of a watch, there is some corresponding disorder to be found in the movements, which being mended by a skilful hand all is right again? The like may be said of all the Clockwork of Nature, great part whereof is so wonderfully fine and subtle as scarce to be discerned by the best microscope. In short, it will be asked, how, upon our Principles, any tolerable account can be given, or any final cause assigned of an innumerable multitude of bodies and machines, framed with the most exquisite art, which in the common philosophy have very apposite uses assigned them, and serve to explain abundance of phenomena?

61. To all which I answer, first, that though there were some difficulties relating to the administration of Providence, and the uses by it assigned to the several parts of nature, which I could not solve by the foregoing Principles, yet this objection could be of small weight against the truth and certainty of those things which may be proved *a priori*, with the utmost evidence and rigour of demonstration[1]. Secondly, but neither are the received principles free from the like difficulties; for, it may still be demanded to what end God should take those roundabout methods of effecting things by instruments and machines, which no one can deny might have been effected by the mere command of His will, without all that *apparatus*. Nay, if we narrowly consider it, we shall find the objection may be retorted with greater force on those who hold the existence of those machines without the mind; for it has been made evident that solidity, bulk,

[1] Cf. sect. 3, 4, 6, 22–24, 26, in which he proceeds upon the intuitive certainty of his two leading Principles, concerning *Reality* and *Causation*.

figure, motion, and the like have no *activity* or *efficacy* in them, so as to be capable of producing any one effect in nature. See sect. 25. Whoever therefore supposes them to exist (allowing the supposition possible) when they are not perceived does it manifestly to no purpose; since the only use that is assigned to them, as they exist unperceived, is that they produce those perceivable effects which in truth cannot be ascribed to anything but Spirit.

62. But, to come nigher the difficulty, it must be observed that though the fabrication of all those parts and organs be not absolutely necessary to the producing any effect, yet it is necessary to the producing of things in a constant regular way, according to the laws of nature. There are certain general laws that run through the whole chain of natural effects: these are learned by the observation and study of nature, and are by men applied, as well to the framing artificial things for the use and ornament of life as to the explaining the various phenomena. Which explication consists only in shewing the conformity any particular phenomenon hath to the general laws of nature, or, which is the same thing, in discovering the *uniformity* there is in the production of natural effects; as will be evident to whoever shall attend to the several instances wherein philosophers pretend to account for appearances. That there is a great and conspicuous *use* in these regular constant methods of working observed by the Supreme Agent hath been shewn in sect. 31. And it is no less visible that a particular size, figure, motion, and disposition of parts are necessary, though not absolutely to the producing any effect, yet to the producing it according to the standing mechanical laws of nature. Thus, for instance, it cannot be denied that God, or the Intelligence that sustains and rules the ordinary course of things, might if He were minded to produce a miracle, cause all the motions on the dial-plate of a watch, though nobody had ever made the movements and put them in it. But yet, if He will act agreeably to the rules of mechanism, by Him for wise ends established and maintained in the creation, it is necessary that those actions of the watchmaker, whereby *he* makes the movements and rightly adjusts them, precede the

production of the aforesaid motions; as also that any disorder in them be attended with the perception of some corresponding disorder in the movements, which being once corrected all is right again [1].

63. It may indeed on some occasions be necessary that the Author of nature display His overruling power in producing some appearance out of the ordinary series of things. Such exceptions from the general rules of nature are proper to surprise and awe men into an acknowledgment of the Divine Being; but then they are to be used but seldom, otherwise there is a plain reason why they should fail of that effect. Besides, God seems to choose the convincing our reason of His attributes by the works of nature, which discover so much harmony and contrivance in their make, and are such plain indications of wisdom and beneficence in their Author, rather than to astonish us into a belief of His Being by anomalous and surprising events [2].

64. To set this matter in a yet clearer light, I shall observe that what has been objected in sect. 60 amounts in reality to no more than this:—*ideas* [3] are not anyhow and at random produced, there being a certain order and connexion between them, like to that of cause and effect: there are also several combinations of them, made in a very regular and artificial manner, which seem like so many instruments in the hand of nature that, being hid as it were behind the scenes, have a secret operation in producing those appearances which are seen on the theatre of the world, being themselves discernible only to the curious eye of the philosopher. But, since one idea cannot be the cause of another, to what purpose is that connexion? And since those instruments, being barely *inefficacious* perceptions in the mind, are not subservient

[1] In short, what is virtually the language of universal natural order is the divine way of revealing omnipresent Intelligence; nor can we conceive how this revelation could be made through a capricious or chaotic succession of changes.

[2] He here touches on moral purpose in miraculous phenomena, but without discussing their relation to the divine, or perfectly reasonable, order of the universe. Relatively to a finite knowledge of nature, they seem anomalous—exceptions from general rules, which nevertheless express, immediately and constantly, perfect active Reason.

[3] 'ideas,' i. e. the phenomena presented to the senses.

to the production of natural effects, it is demanded why they are made; or, in other words, what reason can be assigned why God should make us, upon a close inspection into His works, behold so great variety of ideas, so artfully laid together, and so much according to rule; it not being [[1] credible] that He would be at the expense (if one may so speak) of all that art and regularity to no purpose?

65. To all which my answer is, first, that the connexion of ideas[2] does not imply the relation of *cause* and *effect*, but only of a mark or *sign* with the *thing signified*. The fire which I see is not the cause of the pain I suffer upon my approaching it, but the mark that forewarns me of it. In like manner the noise that I hear is not the effect of this or that motion or collision of the ambient bodies, but the sign thereof[3]. Secondly, the reason why ideas are formed into machines, that is, artificial and regular combinations, is the same with that for combining letters into words. That a few original ideas may be made to signify a great number of effects and actions, it is necessary they be variously combined together. And to the end their use be permanent and universal, these combinations must be made by *rule*, and with *wise contrivance*. By this means abundance of information is conveyed unto us, concerning what we are to expect from such and such actions, and what methods are proper to be taken for the exciting such and such ideas[4]. Which in effect is all that I conceive to be distinctly meant when it is said[5] that, by discerning the figure, texture, and mechanism of the inward parts of bodies, whether natural or artificial, we may attain to know the several uses

[1] 'imaginable'—in first edition.

[2] 'the connexion of ideas,' i. e. the presence of law or reasonable uniformity in the coexistence and succession of the phenomena of sense; which makes them interpretable signs.

[3] According to Berkeley, it is by an abuse of language that the term 'power' is applied to those ideas which are invariable antecedents of other ideas—the prior forms of their existence, as it were.

[4] Berkeley, in meeting this objection, thus implies Universal Natural Symbolism as the essential character of the sensible world, in its relation to man.

[5] See Locke's *Essay*, Bk. IV, ch. 3, § 25–28, &c., in which he suggests that the secondary qualities of bodies may be the natural issue of the different relations and modifications of their primary qualities.

and properties depending thereon, or the nature of the thing.

66. Hence, it is evident that those things which, under the notion of a cause co-operating or concurring to the production of effects, are altogether inexplicable and run us into great absurdities, may be very naturally explained, and have a proper and obvious use assigned to them, when they are considered only as marks or signs for *our* information. And it is the searching after and endeavouring to understand this Language (if I may so call it) of the Author of Nature, that ought to be the employment of the natural philosopher; and not the pretending to explain things by *corporeal* causes, which doctrine seems to have too much estranged the minds of men from that Active Principle, that supreme and wise Spirit 'in whom we live, move, and have our being.'

67. In the *twelfth* place, it may perhaps be objected that—though it be clear from what has been said that there can be no such thing as an inert, senseless, extended, solid, figured, moveable Substance, existing without the mind, such as philosophers describe Matter; yet, if any man shall leave out of his idea of Matter the positive ideas of extension, figure, solidity and motion, and say that he means only by that word an inert, senseless substance, that exists without the mind, or unperceived, which is the *occasion* of our ideas, or at the presence whereof God is pleased to excite ideas in us—it doth not appear but that Matter taken in this sense may possibly exist.—In answer to which I say, first, that it seems no less absurd to suppose a substance without accidents, than it is to suppose accidents without a substance[1]. But secondly, though we should grant this unknown substance may possibly exist, yet where can it be supposed to be? That it exists not in the mind[2] is agreed; and that it exists not in place is no less certain, since all place or extension

[1] With Berkeley, *material substance* is merely the natural combination of sense-presented phenomena, which, under a *divine* or *reasonable* 'arbitrariness,' constitute a concrete thing. Divine Will, or Active Reason, is the constantly sustaining cause of this combination or substantiation.

[2] i. e. that it is not realised in a living percipient experience.

exists only in the mind[1], as hath been already proved. It remains therefore that it exists nowhere at all.

68. Let us examine a little the description that is here given us of Matter. It neither acts, nor perceives, nor is perceived: for this is all that is meant by saying it is an inert, senseless, unknown substance; which is a definition entirely made up of negatives, excepting only the relative notion of its standing under or supporting. But then it must be observed that it supports nothing at all, and how nearly this comes to the description of a *nonentity* I desire may be considered. But, say you, it is the *unknown occasion*[2], at the presence of which ideas are excited in us by the will of God. Now, I would fain know how anything can be present to us, which is neither perceivable by sense nor reflexion, nor capable of producing any idea in our minds, nor is at all extended, nor hath any form, nor exists in any place. The words 'to be present,' when thus applied, must needs be taken in some abstract and strange meaning, and which I am not able to comprehend.

69. Again, let us examine what is meant by *occasion*. So far as I can gather from the common use of language, that word signifies either the agent which produces any effect, or else something that is observed to accompany or go before it, in the ordinary course of things. But, when it is applied to Matter, as above described, it can be taken in neither of those senses; for Matter is said to be passive and inert, and so cannot be an agent or efficient cause. It is also unperceivable, as being devoid of all sensible qualities, and so cannot be the occasion of our perceptions in the latter sense; as when the burning my finger is said to be the occasion of the pain that attends it. What therefore can be meant by calling *matter* an *occasion*? This term is either used in no sense at all, or else in some very distant from its received signification.

70. You will perhaps say that Matter, though it be not perceived by us, is nevertheless perceived by God, to whom it is the occasion of exciting ideas in our minds[3].

[1] For 'place' is realised only as perceived—percipient experience being its concrete existence. Living perception is, with Berkeley, the condition of the possibility of concrete locality.

[2] So in the Cartesian theory of occasional causes.

[3] So Geulinx and Malebranche.

For, say you, since we observe our sensations to be imprinted in an orderly and constant manner, it is but reasonable to suppose there are certain constant and regular occasions of their being produced. That is to say, that there are certain permanent and distinct parcels of Matter, corresponding to our ideas, which, though they do not excite them in our minds, or anywise immediately affect us, as being altogether passive, and unperceivable to us, they are nevertheless to God, by whom they *are* perceived[1], as it were so many occasions to remind Him when and what ideas to imprint on our minds: that so things may go on in a constant uniform manner.

71. In answer to this, I observe that, as the notion of Matter is here stated, the question is no longer concerning the existence of a thing distinct from *Spirit* and *idea*, from perceiving and being perceived; but whether there are not certain Ideas (of I know not what sort) in the mind of God, which are so many marks or notes that direct Him how to produce sensations in our minds in a constant and regular method: much after the same manner as a musician is directed by the notes of music to produce that harmonious train and composition of sound which is called a tune; though they who hear the music do not perceive the notes, and may be entirely ignorant of them. But this notion of Matter (which after all is the only intelligible one that I can pick from what is said of unknown occasions) seems too extravagant to deserve a confutation. Besides, it is in effect no objection against what we have advanced, viz. that there is no senseless unperceived substance.

72. If we follow the light of reason, we shall, from the constant uniform method of our sensations, collect the goodness and wisdom of the Spirit who excites them in our minds; but this is all that I can see reasonably concluded from thence. To me, I say, it is evident that the being of a Spirit—infinitely wise, good, and powerful—is abundantly sufficient to explain all the appearances of nature[2]. But, as for *inert, senseless Matter,* nothing that

[1] As known in Divine intelligence, they are accordingly *Divine Ideas*. And, if this means that the sensible system is the expression of Divine Ideas, which are its ultimate archetype—that the Ideas of God are symbolised to our senses, and then interpreted (or misinterpreted) by human minds, this allies itself with Platonic Idealism.

[2] 'It seems to me,' Hume says,

I perceive has any the least connexion with it, or leads to the thoughts of it. And I would fain see any one explain any the meanest phenomenon in nature by it, or shew any manner of reason, though in the lowest rank of probability, that he can have for its existence; or even make any tolerable sense or meaning of that supposition. For, as to its being an occasion, we have, I think, evidently shewn that with regard to us it is no occasion. It remains therefore that it must be, if at all, the occasion to God of exciting ideas in us; and what this amounts to we have just now seen.

73. It is worth while to reflect a little on the motives which induced men to suppose the existence of *material substance*; that so having observed the gradual ceasing and expiration of those motives or reasons, we may proportionably withdraw the assent that was grounded on them. First, therefore, it was thought that colour, figure, motion, and the rest of the sensible qualities or accidents, did really exist without the mind; and for this reason it seemed needful to suppose some unthinking *substratum* or substance wherein they did exist, since they could not be conceived to exist by themselves[1]. Afterwards, in process of time, men[2] being convinced that colours, sounds, and the rest of the sensible, secondary qualities had no existence without the mind, they stripped this *substratum* or material substance of *those* qualities, leaving only the primary ones, figure, motion, and such-like; which they still conceived to exist without the mind, and consequently to stand in need of a material support. But, it having been shewn that none even of these can possibly exist otherwise than in a Spirit or Mind which perceives them, it follows that we have no longer any reason to suppose the being of Matter[3], nay, that it is

'that this theory of the universal energy and operation of the Supreme Being is *too bold* ever to carry conviction with it to a mind sufficiently apprised of the weakness of human reason, and the narrow limits to which it is confined in all its operations.' But is it not virtually presupposed in the assumed trustworthiness of our experience of the universe?

[1] Accordingly we are led to ask, what the deepest support of their reality must be. Is it found in living Spirit, i e. Active Reason, or in blind Matter?

[2] e. g. Descartes, Malebranche, Locke, &c.

[3] In short, if we mean by Matter, something unrealised in percipient

utterly impossible there should be any such thing;—so long as that word is taken to denote an *unthinking substratum* of qualities or accidents, wherein they exist without the mind[1].

74. But—though it be allowed by the materialists themselves that Matter was thought of only for the sake of supporting accidents, and, the reason entirely ceasing, one might expect the mind should naturally, and without any reluctance at all, quit the belief of what was solely grounded thereon: yet the prejudice is riveted so deeply in our thoughts that we can scarce tell how to part with it, and are therefore inclined, since the *thing* itself is indefensible, at least to retain the *name*; which we apply to I know not what abstracted and indefinite notions of *being*, or *occasion*, though without any shew of reason, at least so far as I can see. For, what is there on our part, or what do we perceive, amongst all the ideas, sensations, notions which are imprinted on our minds, either by sense or reflexion, from whence may be inferred the existence of an inert, thoughtless, unperceived occasion? and, on the other hand, on the part of an All-sufficient Spirit, what can there be that should make us believe or even suspect He is directed by an inert occasion to excite ideas in our minds?

75. It is a very extraordinary instance of the force of prejudice, and much to be lamented, that the mind of man retains so great a fondness, against all the evidence of reason, for a stupid thoughtless *Somewhat*, by the interposition whereof it would as it were screen itself from the Providence of God, and remove it farther off from the affairs of the world. But, though we do the utmost we can to secure the belief of Matter; though, when reason forsakes us, we endeavour to support our opinion on the bare possibility of the thing, and though we indulge ourselves in the full scope of an imagination not regulated by reason to make out that poor possibility; yet the upshot of all is—that there are certain *unknown* Ideas in the mind of God; for this, if anything, is all that I conceive to be meant by *occasion* with regard to God. And this at the

experience of sense, what is called its *reality* is something unintelligible.

[1] And if sensible phenomena are *sufficiently* externalised, when regarded as regulated by Divine Reason.

bottom is no longer contending for the thing, but for the name [1].

76. Whether therefore there are such Ideas in the mind of God, and whether *they* may be called by the name *Matter*, I shall not dispute [2]. But, if you stick to the notion of an unthinking substance or support of extension, motion, and other sensible qualities, then to me it is most evidently impossible there should be any such thing; since it is a plain repugnancy that those qualities should exist in, or be supported by, an unperceiving substance [3].

77. But, say you, though it be granted that there is no thoughtless support of extension, and the other qualities or accidents which we perceive, yet there may perhaps be some inert, unperceiving substance or *substratum* of some other qualities, as incomprehensible to us as colours are to a man born blind, because we have not a sense adapted to them. But, if we had a new sense, we should possibly no more doubt of *their* existence than a blind man made to see does of the existence of light and colours.—I answer, first, if what you mean by the word *Matter* be only the unknown support of unknown qualities, it is no matter whether there is such a thing or no, since it no way concerns us. And I do not see the advantage there is in disputing about what we know not *what*, and we know not *why*.

78. But, secondly, if we had a new sense, it could only furnish us with new ideas or sensations; and then we should have the same reason against *their* existing in an unperceiving substance that has been already offered with

[1] Twenty years after the publication of the *Principles*, in a letter to his American friend Johnson, Berkeley says :—'I have no objection against calling the Ideas in the mind of God *archetypes* of ours. But I object against those archetypes by philosophers supposed to be real things, and so to have an absolute rational existence distinct from their being perceived by any mind whatsoever; it being the opinion of all materialists that an ideal existence in the Divine Mind is one thing, and the real existence of material things another.'

[2] Berkeley's philosophy is not inconsistent with Divine Ideas which receive expression in the laws of nature, and of which human science is the imperfect interpretation. In this view, assertion of the existence of Matter is simply an expression of faith that the phenomenal universe into which we are born is a reasonable and interpretable universe; and that it would be fully interpreted, if our notions could be fully harmonised with the Divine Ideas which it expresses.

[3] Cf. sect. 3–24.

relation to figure, motion, colour, and the like. *Qualities*, as hath been shewn, are nothing else but *sensations* or *ideas*, which exist only in a mind perceiving them; and this is true not only of the ideas we are acquainted with at present, but likewise of all possible ideas whatsoever[1].

79. But you will insist, What if I have no reason to believe the existence of Matter? what if I cannot assign any use to it, or explain anything by it, or even conceive what is meant by that word? yet still it is no contradiction to say that Matter *exists*, and that this Matter is *in general* a *substance*, or *occasion of ideas*; though indeed to go about to unfold the meaning, or adhere to any particular explication of those words may be attended with great difficulties.—I answer, when words are used without a meaning, you may put them together as you please, without danger of running into a contradiction. You may say, for example, that *twice two* is equal to *seven*; so long as you declare you do not take the words of that proposition in their usual acceptation, but for marks of you know not what. And, by the same reason, you may say there is an inert thoughtless substance without accidents, which is the occasion of our ideas. And we shall understand just as much by one proposition as the other.

80. In the *last* place, you will say, What if we give up the cause of material Substance, and stand to it that Matter is an unknown *Somewhat*—neither substance nor accident, spirit nor idea—inert, thoughtless, indivisible, immoveable, unextended, existing in no place? For, say you, whatever may be urged against *substance* or *occasion*, or any other positive or relative notion of Matter, hath no place at all, so long as this negative definition of Matter is adhered to.—I answer, You may, if so it shall seem good, use the word *matter* in the same sense as other men use *nothing*, and so make those terms convertible in your style. For, after all, this is what appears to me to be the result of that definition; the parts whereof, when I

[1] So that superhuman persons, endowed with a million senses, would be no nearer this abstract Matter than man is, with his few senses.

consider with attention, either collectively or separate from each other, I do not find that there is any kind of effect or impression made on my mind, different from what is excited by the term *nothing*.

81. You will reply, perhaps, that in the foresaid definition is included what doth sufficiently distinguish it from nothing—the positive abstract idea of *quiddity, entity*, or *existence*. I own, indeed, that those who pretend to the faculty of framing abstract general ideas do talk as if they had such an idea, which is, say they, the most abstract and general notion of all: that is to me the most incomprehensible of all others. That there are a great variety of spirits of different orders and capacities, whose faculties, both in number and extent, are far exceeding those the Author of my being has bestowed on me, I see no reason to deny. And for me to pretend to determine, by my own few, stinted, narrow inlets of perception, what ideas the inexhaustible power of the Supreme Spirit may imprint upon them, were certainly the utmost folly and presumption. Since there may be, for aught that I know, innumerable sorts of ideas or sensations, as different from one another, and from all that I have perceived, as colours are from sounds[1]. But, how ready soever I may be to acknowledge the scantiness of my comprehension, with regard to the endless variety of spirits and ideas that may possibly exist, yet for any one to pretend to a *notion* of Entity or Existence, *abstracted* from *spirit* and *idea*, from perceived and being perceived, is, I suspect, a downright repugnancy and trifling with words.

It remains that we consider the objections which may possibly be made on the part of Religion.

82. Some there are who think that, though the arguments for the real existence of bodies which are drawn from Reason be allowed not to amount to demonstration, yet the Holy Scriptures are so clear in the point, as will

[1] Matter and physical science is *relative*, so far that we may suppose in other percipients than men, an indefinite number of additional senses, affording corresponding varieties of qualities in things, of course inconceivable by man. Or, we may suppose an intelligence destitute of *all our* senses, and so in a material world wholly different in its appearances from ours.

sufficiently convince every good Christian, that bodies do really exist, and are something more than mere ideas; there being in Holy Writ innumerable facts related which evidently suppose the reality of timber and stone, mountains and rivers, and cities, and human bodies[1]—To which I answer that no sort of writings whatever, sacred or profane, which use those and the like words in the vulgar acceptation, or so as to have a meaning in them, are in danger of having their truth called in question by our doctrine. That all those things do really exist; that there are bodies, even corporeal substances, when taken in the vulgar sense, has been shewn to be agreeable to our principles: and the difference betwixt *things* and *ideas*, *realities* and *chimeras*, has been distinctly explained. See sect. 29, 30, 33, 36, &c. And I do not think that either what philosophers call *Matter*, or the existence of objects without the mind[2], is anywhere mentioned in Scripture.

83. Again, whether there be or be not external things[3], it is agreed on all hands that the proper use of words is the marking *our* conceptions, or things only as they are known and perceived by us: whence it plainly follows, that in the tenets we have laid down there is nothing inconsistent with the right use and significancy of language, and that discourse, of what kind soever, so far as it is intelligible, remains undisturbed. But all this seems so very manifest, from what has been largely set forth in the premises, that it is needless to insist any farther on it.

84. But, it will be urged that miracles do, at least, lose much of their stress and import by our principles. What must we think of Moses' rod? was it not *really* turned into a serpent? or was there only a change of *ideas* in the minds of the spectators? And, can it be supposed that our Saviour did no more at the marriage-feast in Cana than impose on the sight, and smell, and taste of

[1] The authority of Holy Scripture, added to our natural tendency to believe in external reality, are grounds on which Malebranche and Norris infer a material world. Berkeley's material world claims no logical proof of its reality. His aim is not to prove the reality of the world, but to shew what we should mean when we affirm its reality, and the basis of its explicability in science.

[2] i. e. existing unrealised in any intelligence—human or Divine.

[3] 'external things,' i. e. things existing really, yet out of all relation to active living spirit.

the guests, so as to create in them the appearance or idea only of wine? The same may be said of all other miracles: which, in consequence of the foregoing principles, must be looked upon only as so many cheats, or illusions of fancy.—To this I reply, that the rod was changed into a real serpent, and the water into real wine. That this does not in the least contradict what I have elsewhere said will be evident from sect. 34 and 35. But this business of *real* and *imaginary* has been already so plainly and fully explained, and so often referred to, and the difficulties about it are so easily answered from what has gone before, that it were an affront to the reader's understanding to resume the explication of it in this place. I shall only observe that if at table all who were present should see, and smell, and taste, and drink wine, and find the effects of it, with me there could be no doubt of its reality[1]. So that at bottom the scruple concerning real miracles has no place at all on ours, but only on the received principles, and consequently makes rather for than against what has been said.

85. Having done with the Objections, which I endeavoured to propose in the clearest light, and gave them all the force and weight I could, we proceed in the next place to take a view of our tenets in their Consequences[2]. Some of these appear at first sight—as that several difficult and obscure questions, on which abundance of speculation has been thrown away, are entirely banished from philosophy. Whether corporeal substance can think? Whether Matter be infinitely divisible? And how it operates on spirit?—these and the like inquiries have given infinite amusement to philosophers in all ages.

[1] Simultaneous perception of the 'same' (similar?) *sense*-ideas, *by different persons*, as distinguished from purely individual consciousness of feelings and fancies, is here taken as a test of the *virtually external reality* of the former.

Berkeley does not ask whether the change of the rod into a serpent, or of the water into wine, is the issue of divine agency and order, otherwise than as all natural evolution is divinely providential.

[2] Some of the Consequences of adoption of the New Principles, in their application to the physical sciences and mathematics, and then to psychology and theology, are unfolded in the remaining sections of the *Principles*.

But, depending on the existence of Matter, they have no longer any place on our Principles. Many other advantages there are, as well with regard to religion as the sciences, which it is easy for any one to deduce from what has been premised. But this will appear more plainly in the sequel.

86. From the Principles we have laid down it follows human knowledge may naturally be reduced to two heads —that of *ideas* and that of *Spirits*. Of each of these I shall treat in order.

And First as to *ideas*, or *unthinking things*. Our knowledge of these has been very much obscured and confounded, and we have been led into very dangerous errors, by supposing a two-fold existence of sense—the one *intelligible* or in the mind, the other *real* and without the mind [1]. Whereby unthinking things are thought to have a natural subsistence of their own, distinct from being perceived by spirits. This, which, if I mistake not, hath been shewn to be a most groundless and absurd notion, is the very root of Scepticism; for, so long as men thought that real things subsisted without the mind, and that their knowledge was only so far forth *real* as it was *conformable to real things*, it follows they could not be certain that they had any real knowledge at all. For how can it be known that the things which are perceived are conformable to those which are not perceived, or exist without the mind [2]?

87. Colour, figure, motion, extension, and the like, considered only as so many *sensations* in the mind, are perfectly known; there being nothing in them which is not perceived. But, if they are looked on as notes or images, referred to *things* or *archetypes existing without the mind*, then are we involved all in scepticism. We see only the appearances, and not the real qualities of things.

[1] Berkeley disclaims the supposed *representative* character of the ideas given in sensuous perception, and recognises as the real object only what is ideally presented in consciousness.

[2] So Hume, Reid, and Hamilton, who all see in a wholly representative sense-perception, with its double object, the germ of total scepticism. Berkeley claims that, under *his* interpretation of what the reality of the material world means, immediate knowledge of mind-dependent matter is given in sense.

What may be the extension, figure, or motion of anything really and absolutely, or in itself, it is impossible for us to know, but only the proportion or relation they bear to our senses. Things remaining the same, our ideas vary; and which of them, or even whether any of them at all, represent the true quality really existing in the thing, it is out of our reach to determine. So that, for aught we know, all we see, hear, and feel, may be only phantom and vain chimera, and not at all agree with the real things existing in *rerum natura*. All this scepticism[1] follows from our supposing a difference between *things* and *ideas*, and that the former have a subsistence without the mind, or unperceived. It were easy to dilate on this subject, and shew how the arguments urged by sceptics in all ages depend on the supposition of external objects. [[2] But this is too obvious to need being insisted on.]

88. So long as we attribute a real existence to unthinking things, distinct from their being perceived, it is not only impossible for us to know with evidence the nature of any real unthinking being, but even that it exists. Hence it is that we see philosophers distrust their senses, and doubt of the existence of heaven and earth, of everything they see or feel, even of their own bodies. And after all their labouring and struggle of thought, they are forced to own we cannot attain to any self-evident or demonstrative knowledge of the existence of sensible things[3]. But, all this doubtfulness, which so bewilders and confounds the mind and makes philosophy ridiculous in the eyes of the world, vanishes if we annex a meaning to our words, and do not amuse ourselves with the terms *absolute*, *external*, *exist*, and such like, signifying we know not what. I can as well doubt of my own being as of the being of those things which I actually perceive by sense: it being a manifest contradiction that any sensible object should be immediately perceived by sight or touch, and at the same time have no existence in nature; since the very

[1] 'scepticism'—'sceptical cant' in the first edition.

[2] This sentence is omitted in the second edition.

[3] Berkeley's argument against a *finally representative* perception so far resembles that afterwards employed by Reid and Hamilton. They differ as regards the dependence of the sensible object upon percipient spirit for its reality.

existence of an *unthinking being* consists in *being perceived.*

89. Nothing seems of more importance towards erecting a firm system of sound and real knowledge, which may be proof against the assaults of Scepticism, than to lay the beginning in a distinct explication of *what is meant* by *thing, reality, existence*; for in vain shall we dispute concerning the real existence of things, or pretend to any knowledge thereof, so long as we have not fixed the meaning of those words. *Thing* or *being* is the most general name of all: it comprehends under it two kinds, entirely distinct and heterogeneous, and which have nothing common but the name, viz. *spirits* and *ideas.* The former are active, indivisible, [[1] incorruptible] substances: the latter are inert, fleeting, [[1] perishable passions,] or dependent beings; which subsist not by themselves [2], but are supported by, or exist in, minds or spiritual substances.

[[3] We comprehend our own existence by inward feeling or reflection, and that of other spirits by reason [4]. We may be said to have some knowledge or *notion* [5] of our own minds, of spirits and active beings; whereof in a strict sense we have not *ideas.* In like manner, we know and have a *notion* of relations between things or ideas; which relations are distinct from the ideas or things related, inasmuch as the latter may be perceived by us without our perceiving the former. To me it seems that *ideas, spirits,* and *relations* are all in their respective kinds the object of human knowledge and subject of discourse; and that the term *idea* would be improperly extended to signify *everything* we know or have any notion of [6].]

90. Ideas imprinted on the senses are *real* things, or do really exist [7]: this we do not deny; but we deny they *can*

[1] Omitted in second edition.

[2] But whilst unthinking things depend on being perceived, do not our spirits depend on ideas of some sort for their percipient life?

[3] The important passage within brackets was added in the second edition.

[4] 'reason,' i. e. reasoning.

[5] 'Notion,' in its stricter meaning, is thus confined by Berkeley to apprehension of the *Ego*, and intelligence of *relations.* The term 'notion,' in this contrast with *his* 'idea,' becomes important in his vocabulary, although he sometimes uses it vaguely.

[6] Locke uses *idea* in this wider signification.

[7] Inasmuch as they are *real* in and through living percipient mind.

subsist without the minds which perceive them, or that they are resemblances of any archetypes existing without the mind[1]; since the very being of a sensation or idea consists in being perceived, and an idea can be like nothing but an idea. Again, the things perceived by sense may be termed *external*, with regard to their origin; in that they are not generated from within by the mind itself, but imprinted by a Spirit distinct from that which perceives them. Sensible objects may likewise be said to be 'without the mind' in another sense, namely when they exist in some other mind. Thus, when I shut my eyes, the things I saw may still exist; but it must be in another mind[2].

91. It were a mistake to think that what is here said derogates in the least from the reality of things. It is acknowledged, on the received principles, that extension, motion, and in a word all sensible qualities, have need of a support, as not being able to subsist by themselves. But the objects perceived by sense are allowed to be nothing but combinations of those qualities, and consequently cannot subsist by themselves[3]. Thus far it is agreed on all hands. So that in denying the things perceived by sense an existence independent of a substance or support wherein they may exist, we detract nothing from the received opinion of their *reality*, and are guilty of no innovation in that respect. All the difference is that, according to us, the unthinking beings perceived by sense have no existence distinct from being perceived, and cannot therefore exist in any other substance than those unextended indivisible substances, or *spirits*, which act, and think and perceive them. Whereas philosophers vulgarly hold that the sensible qualities do exist in an inert, extended, unperceiving Substance, which they call *Matter*, to which they attribute a natural subsistence, exterior to all thinking beings, or distinct from being perceived by any mind whatsoever,

[1] i. e. *unthinking* archetypes.

[2] In this section Berkeley explains what he means by *externality*. Men cannot act, cannot live, without assuming an external world—in some meaning of the term 'external.' It is the business of the philosopher to explicate its true meaning.

[3] i. e. they are not *substances* in the truest or deepest meaning of the word.

even the Eternal Mind of the Creator; wherein they suppose only Ideas of the corporeal substances [1] created by Him: if indeed they allow them to be at all *created* [2].

92. For, as we have shewn the doctrine of Matter or Corporeal Substance to have been the main pillar and support of Scepticism, so likewise upon the same foundation have been raised all the impious schemes of Atheism and Irreligion. Nay, so great a difficulty has it been thought to conceive Matter produced out of nothing, that the most celebrated among the ancient philosophers, even of those who maintained the being of a God, have thought Matter to be uncreated and co-eternal with Him [3]. How great a friend *material substance* has been to Atheists in all ages were needless to relate. All their monstrous systems have so visible and necessary a dependence on it, that when this corner-stone is once removed, the whole fabric cannot choose but fall to the ground; insomuch that it is no longer worth while to bestow a particular consideration on the absurdities of every wretched sect of Atheists [4].

93. That impious and profane persons should readily fall in with those systems which favour their inclinations, by deriding *immaterial substance*, and supposing the soul to be divisible, and subject to corruption as the body; which exclude all freedom, intelligence, and design from the formation of things, and instead thereof make a self-existent, stupid, unthinking substance the root and origin of all beings; that they should hearken to those who deny a Providence, or inspection of a Superior Mind

[1] 'Ideas of the corporeal substances.' Berkeley might perhaps say—Divine Ideas which are *themselves* our world of sensible things in its ultimate form.

[2] On the scheme of ideal Realism, 'creation' of matter is presenting to finite minds sense-ideas or phenomena, which are, as it were, letters of the alphabet, in that language of natural order which God employs for the expression of *His* Ideas to us.

[3] The *independent* eternity of Matter must be distinguished from an unbeginning and endless *creation* of sensible ideas or phenomena, in percipient spirits, according to divine natural law and order, with implied immanence of God.

[4] Because the question at issue with Atheism is, whether the universe of things and persons is finally substantiated and evolved in unthinking Matter or in the perfect Reason of God.

over the affairs of the world, attributing the whole series of events either to blind chance or fatal necessity, arising from the impulse of one body on another—all this is very natural. And, on the other hand, when men of better principles observe the enemies of religion lay so great a stress on *unthinking Matter*, and all of them use so much industry and artifice to reduce everything to it; methinks they should rejoice to see them deprived of their grand support, and driven from that only fortress, without which your Epicureans, Hobbists, and the like, have not even the shadow of a pretence, but become the most cheap and easy triumph in the world.

94. The existence of Matter, or bodies unperceived, has not only been the main support of Atheists and Fatalists, but on the same principle doth Idolatry likewise in all its various forms depend. Did men but consider that the sun, moon, and stars, and every other object of the senses, are only so many sensations in their minds, which have no other existence but barely being perceived, doubtless they would never fall down and worship *their own ideas*; but rather address their homage to that Eternal Invisible Mind which produces and sustains all things.

95. The same absurd principle, by mingling itself with the articles of our faith, hath occasioned no small difficulties to Christians. For example, about the Resurrection, how many scruples and objections have been raised by Socinians and others? But do not the most plausible of them depend on the supposition that a body is denominated the *same*, with regard not to the form, or that which is perceived by sense[1], but the material substance, which remains the same under several forms? Take away this *material substance*—about the identity whereof all the dispute is—and mean by *body* what every plain ordinary person means by that word, to wit, that which is immediately seen and felt, which is only a combination of sensible qualities or ideas: and then their most unanswerable objections come to nothing.

96. Matter[2] being once expelled out of nature drags

[1] Of which Berkeley does *not* predicate a *numerical* identity. Cf. *Third Dialogue between Hylas and Philonous*.

[2] 'matter,' i. e. matter abstracted from all percipient life and voluntary activity.

with it so many sceptical and impious notions, such an incredible number of disputes and puzzling questions, which have been thorns in the sides of divines as well as philosophers, and made so much fruitless work for mankind, that if the arguments we have produced against it are not found equal to demonstration (as to me they evidently seem), yet I am sure all friends to knowledge, peace, and religion have reason to wish they were.

97. Beside the external[1] existence of the objects of perception, another great source of errors and difficulties with regard to ideal knowledge is the doctrine of *abstract ideas*, such as it hath been set forth in the Introduction. The plainest things in the world, those we are most intimately acquainted with and perfectly know, when they are considered in an abstract way, appear strangely difficult and incomprehensible. Time, place, and motion, taken in particular or concrete, are what everybody knows; but, having passed through the hands of a metaphysician, they become too abstract and fine to be apprehended by men of ordinary sense. Bid your servant meet you at such a *time*, in such a *place*, and he shall never stay to deliberate on the meaning of those words. In conceiving that particular time and place, or the motion by which he is to get thither, he finds not the least difficulty. But if *time* be taken exclusive of all those particular actions and ideas that diversify the day, merely for the continuation of existence or duration in abstract, then it will perhaps gravel even a philosopher to comprehend it.

98. For my own part, whenever I attempt to frame a simple idea of *time*, abstracted from the succession of ideas in my mind, which flows uniformly, and is participated by all beings, I am lost and embrangled in inextricable difficulties. I have no notion of it at all: only I hear others say it is infinitely divisible, and speak of it in such a manner as leads me to harbour odd thoughts of my existence: since that doctrine lays one under an absolute necessity of thinking, either that he passes away innumerable ages without a thought, or else that he is annihilated every moment of his life: both

[1] 'external'—not in Berkeley's meaning of externality. Cf. sect. 90, note 2.

which seem equally absurd[1]. Time therefore being nothing, abstracted from the succession of ideas in our minds, it follows that the duration of any finite spirit must be estimated by the number of ideas or actions succeeding each other in that same spirit or mind. Hence, it is a plain consequence that the soul always thinks. And in truth whoever shall go about to divide in his thoughts or abstract the *existence* of a spirit from its *cogitation*, will, I believe, find it no easy task[2].

99. So likewise when we attempt to abstract *extension* and *motion* from all other qualities, and consider them by themselves, we presently lose sight of them, and run into great extravagances. [[3] Hence spring those odd paradoxes, that the fire is not hot, nor the wall white; or that heat and colour are in the objects nothing but figure and motion.] All which depend on a twofold abstraction: first, it is supposed that extension, for example, may be abstracted from all other sensible qualities; and, secondly, that the entity of extension may be abstracted from its being perceived. But, whoever shall reflect, and take care to understand what he says, will, if I mistake not, acknowledge that all sensible qualities are alike *sensations*, and alike *real*; that where the extension is, there is the colour too, to wit, in his mind[4], and that their archetypes can exist only in

[1] *Si non rogas, intelligo.* Berkeley writes long after this to Johnson thus:—'A succession of ideas (phenomena) I take to *constitute* time, and not to be only the sensible measure thereof, as Mr. Locke and others think. But in these matters every man is to think for himself, and speak as he finds. One of my earliest inquiries was about *time*; which led me into several paradoxes that I did not think it fit or necessary to publish, particularly into the notion that the resurrection follows the next moment after death. We are confounded and perplexed about time—supposing a succession in God; that we have an abstract idea of time; that time in one mind is to be measured by succession of ideas in another mind: not considering the true use of words, which as often terminate in the will as in the understanding, being employed to excite and direct action rather than to produce clear and distinct ideas.' Cf. Introduction, sect. 20.

[2] As the *esse* of unthinking things is *percipi*, according to Berkeley, so the *esse* of persons is *percipere*. The real existence of individual Mind thus depends on having ideas of some sort: the real existence of matter depends on a percipient.

[3] This sentence is omitted in the second edition.

[4] Cf. *New Theory of Vision*, sect. 43.

some other *mind*: and that the objects of sense[1] are nothing but those sensations, combined, blended, or (if one may so speak) concreted together; none of all which can be supposed to exist unperceived. [[2] And that consequently the wall is as truly white as it is extended, and in the same sense.]

100. What it is for a man to be happy, or an object good, every one may think he knows. But to frame an abstract idea of happiness, prescinded from all particular pleasure, or of goodness from everything that is good, this is what few can pretend to. So likewise a man may be just and virtuous without having precise ideas of justice and virtue. The opinion that those and the like words stand for general notions, abstracted from all particular persons and actions, seems to have rendered morality difficult, and the study thereof of less use to mankind. [[2] And in effect one may make a great progress in school-ethics without ever being the wiser or better man for it, or knowing how to behave himself in the affairs of life more to the advantage of himself or his neighbours than he did before.] And in effect the doctrine of *abstraction* has not a little contributed towards spoiling the most useful parts of knowledge.

101. The two great provinces of speculative science conversant about ideas received from sense and their relations, are Natural Philosophy and Mathematics. With regard to each of these I shall make some observations.

And first I shall say somewhat of Natural Philosophy. On this subject it is that the sceptics triumph. All that stock of arguments they produce to depreciate our faculties and make mankind appear ignorant and low, are drawn principally from this head, namely, that we are under an invincible blindness as to the *true* and *real* nature of things. This they exaggerate, and love to enlarge on. We are miserably bantered, say they, by our senses, and amused only with the outside and shew of things. The real

[1] 'objects of sense,' i. e. sensible things, practically external to each person. Cf. sect. 1, on the meaning of *thing*, as distinct from the distinguishable ideas or phenomena that are naturally aggregated in the form of concrete things.

[2] Omitted in second edition.

essence, the internal qualities and constitution of every the meanest object, is hid from our view: something there is in every drop of water, every grain of sand, which it is beyond the power of human understanding to fathom or comprehend[1]. But, it is evident from what has been shewn that all this complaint is groundless, and that we are influenced by false principles to that degree as to mistrust our senses, and think we know nothing of those things which we perfectly comprehend.

102. One great inducement to our pronouncing ourselves ignorant of the nature of things is, the current opinion that every thing includes *within itself* the cause of its properties: or that there is in each object an inward essence, which is the source whence its discernible qualities flow, and whereon they depend. Some have pretended to account for appearances by occult qualities; but of late they are mostly resolved into mechanical causes, to wit, the figure, motion, weight, and suchlike qualities, of insensible particles[2]: whereas, in truth, there is no other agent or efficient cause than *spirit*, it being evident that motion, as well as all other *ideas*, is perfectly inert. See sect. 25. Hence, to endeavour to explain the production of colours or sounds, by figure, motion, magnitude, and the like, must needs be labour in vain. And accordingly we see the attempts of that kind are not at all satisfactory. Which may be said in general of those instances wherein one idea or quality is assigned for the cause of another. I need not say how many hypotheses and speculations are left out, and how much the study of nature is abridged by this doctrine[3].

103. The great mechanical principle now in vogue is *attraction*. That a stone falls to the earth, or the sea swells towards the moon, may to some appear sufficiently explained thereby. But how are we enlightened by being told this is done by attraction? Is it that that word signifies the manner of the tendency, and that it is by the

[1] Cf. Introduction, sect. 1–3. With Berkeley, the real essence of sensible things is given in perception—so far as our perceptions carry us.

[2] e. g. Locke's *Essay*, Bk. IV. ch. 3.

[3] Berkeley advocates a Realism, which eliminates effective causation from the material world, concentrates it in Mind, and in physical research seeks among data of sense for their divinely maintained natural laws.

mutual drawing of bodies instead of their being impelled or protruded towards each other? But nothing is determined of the manner or action, and it may as truly (for aught we know) be termed *impulse*, or *protrusion*, as *attraction*. Again, the parts of steel we see cohere firmly together, and this also is accounted for by attraction; but, in this, as in the other instances, I do not perceive that anything is signified besides the effect itself; for as to the manner of the action whereby it is produced, or the cause which produces it, these are not so much as aimed at.

104. Indeed, if we take a view of the several phenomena, and compare them together, we may observe some likeness and conformity between them. For example, in the falling of a stone to the ground, in the rising of the sea towards the moon, in cohesion and crystallization, there is something alike; namely, an union or mutual approach of bodies. So that any one of these or the like phenomena may not seem strange or surprising to a man who has nicely observed and compared the effects of nature. For that only is thought so which is uncommon, or a thing by itself, and out of the ordinary course of our observation. That bodies should tend towards the centre of the earth is not thought strange, because it is what we perceive every moment of our lives. But that they should have a like gravitation towards the centre of the moon may seem odd and unaccountable to most men, because it is discerned only in the tides. But a philosopher, whose thoughts take in a larger compass of nature, having observed a certain similitude of appearances, as well in the heavens as the earth, that argue innumerable bodies to have a mutual tendency towards each other, which he denotes by the general name *attraction*, whatever can be reduced to that, he thinks justly accounted for. Thus he explains the tides by the attraction of the terraqueous globe towards the moon; which to him doth not appear odd or anomalous, but only a particular example of a general rule or law of nature.

105. If therefore we consider the difference there is betwixt natural philosophers and other men, with regard to their knowledge of the phenomena, we shall find it consists, not in an exacter knowledge of the efficient cause that produces them—for that can be no other than the *will*

of a spirit—but only in a greater largeness of comprehension, whereby analogies, harmonies, and agreements are discovered in the works of nature, and the particular effects explained, that is, reduced to general rules, see sect. 62: which rules, grounded on the analogy and uniformness observed in the production of natural effects, are most agreeable and sought after by the mind; for that they extend our prospect beyond what is present and near to us, and enable us to make very probable conjectures touching things that may have happened at very great distances of time and place, as well as to predict things to come: which sort of endeavour towards Omniscience is much affected by the mind.

106. But we should proceed warily in such things: for we are apt to lay too great a stress on analogies, and, to the prejudice of truth, humour that eagerness of the mind, whereby it is carried to extend its knowledge into general theorems. For example, gravitation or mutual attraction, because it appears in many instances, some are straightway for pronouncing *universal*; and that to attract and be attracted by every other body is an essential quality inherent in all bodies whatsoever. Whereas it is evident the fixed stars have no such tendency towards each other; and, so far is that gravitation from being *essential* to bodies that in some instances a quite contrary principle seems to shew itself; as in the perpendicular growth of plants, and the elasticity of the air. There is nothing necessary or essential in the case[1]; but it depends entirely on the will of the Governing Spirit[2], who causes certain bodies to cleave together or tend towards each other according to various laws, whilst He keeps others at a fixed distance; and to some He gives a quite contrary tendency to fly asunder, just as He sees convenient.

107. After what has been premised, I think we may lay down the following conclusions. First, it is plain philoso-

[1] In interpreting the data of sense, we are obliged to assume that every *new* phenomenon must have previously existed in some equivalent form—but not necessarily in this or that particular form, for a knowledge of which we are indebted to inductive comparisons of experience.

[2] *The* preceding forms of new phenomena, being finally determined by Will, are, in that sense, arbitrary; but not capricious, for the Will is perfect Reason. God is the immanent cause of the natural order.

phers amuse themselves in vain, when they enquire for any natural efficient cause, distinct from a *mind* or *spirit*. Secondly, considering the whole creation is the workmanship of a *wise and good Agent*, it should seem to become philosophers to employ their thoughts (contrary to what some hold [1]) about the final causes of things. [[2] For, besides that this would prove a very pleasing entertainment to the mind, it might be of great advantage, in that it not only discovers to us the attributes of the Creator, but may also direct us in several instances to the proper uses and applications of things.] And I must confess I see no reason why pointing out the various ends to which natural things are adapted, and for which they were originally with unspeakable wisdom contrived, should not be thought one good way of accounting for them, and altogether worthy a philosopher. Thirdly, from what has been premised, no reason can be drawn why the history of nature should not still be studied, and observations and experiments made; which, that they are of use to mankind, and enable us to draw any general conclusions, is not the result of any immutable habitudes or relations between things themselves, but only of God's goodness and kindness to men in the administration of the world. See sects. 30 and 31. Fourthly, by a diligent observation of the phenomena within our view, we may discover the general laws of nature, and from them deduce other phenomena. I do not say *demonstrate*; for all deductions of that kind depend on a supposition that the Author of Nature always operates uniformly, and in a constant observance of those rules *we* take for principles, which we cannot evidently know [3].

108. [[2] It appears from sect. 66, &c. that the steady consistent methods of nature may not unfitly be styled the Language of its Author, whereby He discovers His attributes to our view and directs us how to act for the convenience and felicity of life. Those men who frame [4] general rules from the phenomena, and afterwards derive [5]

[1] He probably refers to Bacon.

[2] Omitted in second edition.

[3] What we are able to discover in the all-comprehensive order may be subordinate and provisional only. Nature in its deepest meaning explains itself in the Divine Omniscience.

[4] i. e. inductively.

[5] i. e. deductively.

the phenomena from those rules, seem to consider signs[1] rather than causes. [2]A man may well understand natural signs without knowing their analogy, or being able to say by what rule a thing is so or so. And, as it is very possible to write improperly, through too strict an observance of general grammar-rules; so, in arguing from general laws of nature, it is not impossible we may extend[3] the analogy too far, and by that means run into mistakes.

109. [[4]To carry on the resemblance.] As in reading other books a wise man will choose to fix his thoughts on the sense and apply it to use, rather than lay them out in grammatical remarks on the language; so, in perusing the volume of nature, methinks it is beneath the dignity of the mind to affect an exactness in reducing each particular phenomenon to general rules, or shewing how it follows from them. We should propose to ourselves nobler views, such as to recreate and exalt the mind with a prospect of the beauty, order, extent, and variety of natural things: hence, by proper inferences, to enlarge our notions of the grandeur, wisdom, and beneficence of the Creator: and lastly, to make the several parts of the creation, so far as in us lies, subservient to the ends they were designed for—God's glory, and the sustentation and comfort of ourselves and fellow-creatures.

110. [[5]The best key for the aforesaid analogy, or natural Science, will be easily acknowledged to be a certain celebrated Treatise of *Mechanics*.] In the entrance of

[1] 'seem to consider signs,' i. e. to be grammarians rather than philosophers: physical sciences deal with the grammar of the divine language of nature.

[2] 'A man may be well read in the language of nature without understanding the grammar of it, or being able to say,' &c.—in first edition.

[3] 'extend'—'stretch'—in first edition.

[4] Omitted in second edition.

[5] In the first edition, the section commences thus: 'The best grammar of the kind we are speaking of will be easily acknowledged to be a treatise of *Mechanics*, demonstrated and applied to Nature, by a philosopher of a neighbouring nation, whom all the world admire. I shall not take upon me to make remarks on the performance of that extraordinary person: only some things he has advanced so directly opposite to the doctrine we have hitherto laid down, that we should be wanting in the regard due to the authority of so great a man did we not take some notice of them.' He refers, of course, to Newton. The first edition of Berkeley's *Principles* was published in Ireland—hence 'neighbouring nation.' Newton's *Principia* appeared in 1687.

which justly admired treatise, Time, Space, and Motion are distinguished into *absolute* and *relative, true* and *apparent, mathematical* and *vulgar*: which distinction, as it is at large explained by the author, does suppose those quantities to have an existence without the mind: and that they are ordinarily conceived with relation to sensible things, to which nevertheless in their own nature they bear no relation at all.

111. As for *Time*, as it is there taken in an absolute or abstracted sense, for the duration or perseverance of the existence of things, I have nothing more to add concerning it after what has been already said on that subject. Sects. 97 and 98. For the rest, this celebrated author holds there is an *absolute Space*, which, being unperceivable to sense, remains in itself similar and immoveable; and relative space to be the measure thereof, which, being moveable and defined by its situation in respect of sensible bodies, is vulgarly taken for immoveable space. *Place* he defines to be that part of space which is occupied by any body: and according as the space is absolute or relative so also is the place. *Absolute Motion* is said to be the translation of a body from absolute place to absolute place, as relative motion is from one relative place to another. And because the parts of absolute space do not fall under our senses, instead of them we are obliged to use their sensible measures; and so define both place and motion with respect to bodies which we regard as immoveable. But it is said, in philosophical matters we must abstract from our senses; since it may be that none of those bodies which seem to be quiescent are truly so; and the same thing which is moved relatively may be really at rest. As likewise one and the same body may be in relative rest and motion, or even moved with contrary relative motions at the same time, according as its place is variously defined. All which ambiguity is to be found in the apparent motions; but not at all in the true or absolute, which should therefore be alone regarded in philosophy. And the true we are told are distinguished from apparent or relative motions by the following properties. First, in true or absolute motion, all parts which preserve the same position with respect of the whole, partake of the motions of the whole. Secondly, the place being moved, that

which is placed therein is also moved: so that a body moving in a place which is in motion doth participate the motion of its place. Thirdly, true motion is never generated or changed otherwise than by force impressed on the body itself. Fourthly, true motion is always changed by force impressed on the body moved. Fifthly, in circular motion, barely relative, there is no centrifugal force, which nevertheless, in that which is true or absolute, is proportional to the quantity of motion.

112. But, notwithstanding what hath been said, I must confess it does not appear to me that there can be any motion other than *relative*[1]: so that to conceive motion there must be conceived at least two bodies; whereof the distance or position in regard to each other is varied. Hence, if there was one only body in being it could not possibly be moved. This seems evident, in that the idea I have of motion doth necessarily include relation.—[2 Whether others can conceive it otherwise, a little attention may satisfy them.]

113. But, though in every motion it be necessary to conceive more bodies than one, yet it may be that one only is moved, namely, that on which the force causing the change in the distance or situation of the bodies is impressed. For, however some may define relative motion, so as to term that body *moved* which changes its distance from some other body, whether the force [3 or action] causing that change were impressed on it or no, yet, as relative motion is that which is perceived by sense, and regarded in the ordinary affairs of life, it follows that every man of common sense knows what it is as well as the best philosopher. Now, I ask any one whether, in his sense of motion as he walks along the streets, the stones he passes over may be said to *move*, because they change distance with his feet? To me it appears that though motion includes a relation of one thing to another, yet it is not necessary that each term of the relation be denominated from it. As a man may think of somewhat which does

[1] 'Motion,' in various aspects, is treated specially in the *De Motu*. An imagination of trinal space presupposes locomotive experience — unimpeded, in contrast with impeded locomotion. Cf. sect. 116.

[2] Omitted in second edition.

[3] Added in second edition.

not think, so a body may be moved to or from another body which is not therefore itself in motion, [[1] I mean relative motion, for other I am not able to conceive.]

114. As the place happens to be variously defined, the motion which is related to it varies[2]. A man in a ship may be said to be quiescent with relation to the sides of the vessel, and yet move with relation to the land. Or he may move eastward in respect of the one, and westward in respect of the other. In the common affairs of life, men never go beyond the Earth to define the place of any body; and what is quiescent in respect of *that* is accounted *absolutely* to be so. But philosophers, who have a greater extent of thought, and juster notions of the system of things, discover even the Earth itself to be moved. In order therefore to fix their notions, they seem to conceive the Corporeal World as finite, and the utmost unmoved walls or shell thereof to be the place whereby they estimate true motions. If we sound our own conceptions, I believe we may find all the absolute motion we can frame an idea of to be at bottom no other than relative motion thus defined. For, as has been already observed, absolute motion, exclusive of *all* external relation, is incomprehensible: and to this kind of relative motion all the above-mentioned properties, causes, and effects ascribed to absolute motion will, if I mistake not, be found to agree. As to what is said of the centrifugal force, that it does not at all belong to circular relative motion, I do not see how this follows from the experiment which is brought to prove it. See Newton's *Philosophiae Naturalis Principia Mathematica, in Schol. Def. VIII.* For the water in the vessel, at that time wherein it is said to have the greatest relative circular motion, hath, I think, no motion at all: as is plain from the foregoing section.

115. For, to denominate a body *moved*, it is requisite, first, that it change its distance or situation with regard to some other body: and secondly, that the force occasioning that change be applied to[3] it. If either of these be wanting, I do not think that, agreeably to the sense of mankind, or the propriety of language, a body

[1] Omitted in second edition.

[2] See Locke's *Essay*, Bk. II. ch. 13, §§ 7–10.

[3] 'applied to'—'impressed on' —in first edition.

can be said to be in motion. I grant indeed that it is possible for us to think a body, which we see change its distance from some other, to be moved, though it have no force applied to[1] it (in which sense there may be apparent motion); but then it is because the force causing the change[2] of distance is imagined by us to be [[3]applied or] impressed on that body thought to move. Which indeed shews we are capable of mistaking a thing to be in motion which is not, and that is all. [[4]But it does not prove that, in the common acceptation of motion, a body is moved merely because it changes distance from another; since as soon as we are undeceived, and find that the moving force was not communicated to it, we no longer hold it to be moved. So, on the other hand, when one only body (the parts whereof preserve a given position between themselves) is imagined to exist, some there are who think that it can be moved all manner of ways, though without any change of distance or situation to any other bodies; which we should not deny, if they meant only that it might have an impressed force, which, upon the bare creation of other bodies, would produce a motion of some certain quantity and determination. But that an actual motion (distinct from the impressed force, or power, productive of change of place in case there were bodies present whereby to define it) can exist in such a single body, I must confess I am not able to comprehend.]

116. From what has been said, it follows that the philosophic consideration of motion doth not imply the being of an *absolute Space*, distinct from that which is perceived by sense, and related to bodies: which that it cannot exist without the mind is clear upon the same principles that demonstrate the like of all other objects of sense. And perhaps, if we inquire narrowly, we shall find we cannot even frame an idea of *pure Space exclusive of all body*. This I must confess seems impossible[5], as

[1] 'applied to'—'impressed on'—in first edition.

[2] 'the *force* causing the change'—which 'force,' according to Berkeley, can only be attributed metaphorically to the so-called impelling body; inasmuch as *bodies*, or the data of sense, can only be signs of their consequent events, not efficient causes of change.

[3] Added in second edition.

[4] What follows to the end of this section is omitted in the second edition.

[5] 'seems impossible'—'is above my capacity'—in first edition.

being a most abstract idea. When I excite a motion in some part of my body, if it be free or without resistance, I say there is *Space*. But if I find a resistance, then I say there is *Body*: and in proportion as the resistance to motion is lesser or greater, I say the space is more or less *pure*. So that when I speak of pure or empty space, it is not to be supposed that the word *space* stands for an idea distinct from, or conceivable without, body and motion. Though indeed we are apt to think every noun substantive stands for a distinct idea that may be separated from all others; which hath occasioned infinite mistakes. When, therefore, supposing all the world to be annihilated besides my own body, I say there still remains *pure Space*; thereby nothing else is meant but only that I conceive it possible for the limbs of my body to be moved on all sides without the least resistance: but if that too were annihilated then there could be no motion, and consequently no Space[1]. Some, perhaps, may think the sense of seeing doth furnish them with the idea of pure space; but it is plain from what we have elsewhere shewn, that the ideas of space and distance are not obtained by that sense. See the *Essay concerning Vision*.

117. What is here laid down seems to put an end to all those disputes and difficulties that have sprung up amongst the learned concerning the nature of *pure Space*. But the chief advantage arising from it is that we are freed from that dangerous dilemma, to which several who have employed their thoughts on that subject imagine themselves reduced, viz. of thinking either that Real Space is God, or else that there is something beside God which is eternal, uncreated, infinite, indivisible, immutable. Both which may justly be thought pernicious and absurd notions. It is certain that not a few divines, as well as philosophers of great note, have, from the difficulty they found in conceiving either limits or annihilation of space, concluded it must be *divine*. And some of late have set themselves particularly to shew that the incommunicable attributes of God agree to it. Which doctrine, how unworthy soever it may seem of the Divine Nature, yet

[1] In short, empty Space *is* the sensuous idea of unresisted motion. This is implied in the *New Theory of Vision*. He minimises Space, treating it as a datum of sense.

I must confess I do not see how we can get clear of it, so long as we adhere to the received opinions [1].

118. Hitherto of Natural Philosophy. We come now to make some inquiry concerning that other great branch of speculative knowledge, to wit, Mathematics [2]. These, how celebrated soever they may be for their clearness and certainty of demonstration, which is hardly anywhere else to be found, cannot nevertheless be supposed altogether free from mistakes, if in their principles there lurks some secret error which is common to the professors of those sciences with the rest of mankind. Mathematicians, though they deduce their theorems from a great height of evidence, yet their first principles are limited by the consideration of Quantity. And they do not ascend into any inquiry concerning those transcendental maxims which influence all the particular sciences; each part whereof, Mathematics not excepted, doth consequently participate of the errors involved in them. That the principles laid down by mathematicians are true, and their way of deduction from those principles clear and incontestible, we do not deny. But we hold there may be certain erroneous maxims of greater extent than the object of Mathematics, and for that reason not expressly mentioned, though tacitly supposed, throughout the whole progress of that science; and that the ill effects of those secret unexamined errors are diffused through all the branches thereof. To be plain, we suspect the mathematicians are no less deeply concerned than other men in the errors arising from the doctrine of abstract general ideas, and the existence of objects without the mind.

119. Arithmetic hath been thought to have for its object abstract ideas of *number*. Of which to understand the properties and mutual habitudes, is supposed no mean part of speculative knowledge. The opinion of the pure and intellectual nature of numbers in abstract has made them

[1] He probably refers to Samuel Clarke's *Demonstration of the Being and Attributes of God*, which appeared in 1706, and a treatise *De Spatio Reali*, published in the same year.

[2] Sect. 118-132 are accordingly concerned with the New Principles in their application to Mathematics. The foundation of the mathematical sciences engaged much of Berkeley's thought in early life and in his later years. See his *Analyst*.

in esteem with those philosophers who seem to have affected an uncommon fineness and elevation of thought. It hath set a price on the most trifling numerical speculations, which in practice are of no use, but serve only for amusement; and hath heretofore so far infected the minds of some, that they have dreamed of mighty *mysteries* involved in numbers, and attempted the explication of natural things by them. But, if we narrowly inquire into our own thoughts, and consider what has been premised, we may perhaps entertain a low opinion of those high flights and abstractions, and look on all inquiries about numbers only as so many *difficiles nugae*, so far as they are not subservient to practice, and promote the benefit of life.

120. Unity in abstract we have before considered in sect. 13; from which, and what has been said in the Introduction, it plainly follows there is not any such idea. But, number being defined a *collection of units*, we may conclude that, if there be no such thing as unity, or unit in abstract, there are no *ideas* of number in abstract, denoted by the numeral names and figures. The theories therefore in Arithmetic, if they are abstracted from the names and figures, as likewise from all use and practice, as well as from the particular things numbered, can be supposed to have nothing at all for their object. Hence we may see how entirely the science of numbers is subordinate to practice, and how jejune and trifling it becomes when considered as a matter of mere speculation [1].

121. However, since there may be some who, deluded by the specious show of discovering abstracted verities, waste their time in arithmetical theorems and problems which have not any use, it will not be amiss if we more fully consider and expose the vanity of that pretence. And this will plainly appear by taking a view of Arithmetic in its infancy, and observing what it was that originally put men on the study of that science, and to what scope they directed it. It is natural to think that at first, men, for ease of memory and help of computation, made use of counters, or in writing of single strokes, points, or the like, each whereof was made to signify an unit, *i. e.* some one thing of whatever kind they had occasion to

[1] Numerical relations are *realised* only in concrete experience.

reckon. Afterwards they found out the more compendious ways of making one character stand in place of several strokes or points. And, lastly, the notation of the Arabians or Indians came into use; wherein, by the repetition of a few characters or figures, and varying the signification of each figure according to the place it obtains, all numbers may be most aptly expressed. Which seems to have been done in imitation of language, so that an exact analogy is observed betwixt the notation by figures and names, the nine simple figures answering the nine first numeral names and places in the former, corresponding to denominations in the latter. And agreeably to those conditions of the simple and local value of figures, were contrived methods of finding, from the given figures or marks of the parts, what figures and how placed are proper to denote the whole, or *vice versa*. And having found the sought figures, the same rule or analogy being observed throughout, it is easy to read them into words; and so the number becomes perfectly known. For then the number of any particular things is said to be known, when we know the name or figures (with their due arrangement) that according to the standing analogy belong to them. For, these signs being known, we can by the operations of arithmetic know the signs of any part of the particular sums signified by them; and thus computing in signs, (because of the connexion established betwixt them and the distinct multitudes of things, whereof one is taken for an unit), we may be able rightly to sum up, divide, and proportion the things themselves that we intend to number.

122. In Arithmetic, therefore, we regard not the *things* but the *signs*; which nevertheless are not regarded for their own sake, but because they direct us how to act with relation to things, and dispose rightly of them. Now, agreeably to what we have before observed of Words in general (sect. 19, Introd.), it happens here likewise, that abstract ideas are thought to be signified by numeral names or characters, while they do not suggest ideas of particular things to our minds. I shall not at present enter into a more particular dissertation on this subject; but only observe that it is evident from what has been said, those things which pass for abstract truths and

theorems concerning numbers, are in reality conversant about no object distinct from particular numerable things; except only names and characters, which originally came to be considered on no other account but their being *signs*, or capable to represent aptly whatever particular things men had need to compute. Whence it follows that to study them for their own sake would be just as wise, and to as good purpose, as if a man, neglecting the true use or original intention and subserviency of language, should spend his time in impertinent criticisms upon words, or reasonings and controversies purely verbal[1].

123. From numbers we proceed to speak of *extension*[2], which, considered as relative, is the object of Geometry. The *infinite* divisibility of *finite* extension, though it is not expressly laid down either as an axiom or theorem in the elements of that science, yet is throughout the same everywhere supposed, and thought to have so inseparable and essential a connexion with the principles and demonstrations in Geometry that mathematicians never admit it into doubt, or make the least question of it. And as this notion is the source from whence do spring all those amusing geometrical paradoxes which have such a direct repugnancy to the plain common sense of mankind, and are admitted with so much reluctance into a mind not yet debauched by learning; so is it the principal occasion of all that nice and extreme subtilty, which renders the study of Mathematics so very difficult and tedious. Hence, if we can make it appear that no *finite* extension contains innumerable parts, or is infinitely divisible, it follows that we shall at once clear the science of Geometry from a great number of difficulties and contradictions which have ever been esteemed a reproach to human reason, and withal make the attainment thereof a business of much less time and pains than it hitherto hath been.

124. Every particular finite extension which may possibly be the object of our thought is an *idea* existing only in the mind; and consequently each part thereof must be perceived. If, therefore, I cannot *perceive* innumerable parts in any finite extension that I consider, it is certain they are not contained in it. But it is evident that

[1] Cf. *New Theory of Vision*, sect. 107, &c.

[2] Ibid. sect. 122–125, 149–160.

I cannot distinguish innumerable parts in any particular line, surface, or solid, which I either perceive by sense, or figure to myself in my mind. Wherefore I conclude they are not contained in it. Nothing can be plainer to me than that the extensions I have in view are no other than my own ideas; and it is no less plain that I cannot resolve any one of my ideas into an infinite number of other ideas; that is, that they are not infinitely divisible[1]. If by *finite extension* be meant something distinct from a finite idea, I declare I do not know what that is, and so cannot affirm or deny anything of it. But if the terms *extension*, *parts*, and the like, are taken in any sense conceivable—that is, for *ideas*,—then to say a finite quantity or extension consists of parts infinite in number is so manifest and glaring a contradiction, that every one at first sight acknowledges it to be so. And it is impossible it should ever gain the assent of any reasonable creature who is not brought to it by gentle and slow degrees, as a converted Gentile[2] to the belief of transubstantiation. Ancient and rooted prejudices do often pass into principles. And those propositions which once obtain the force and credit of a *principle*, are not only themselves, but likewise whatever is deducible from them, thought privileged from all examination. And there is no absurdity so gross, which, by this means, the mind of man may not be prepared to swallow[3].

125. He whose understanding is prepossessed with the doctrine of abstract general ideas may be persuaded that (whatever be thought of the ideas of sense) *extension in abstract* is infinitely divisible. And one who thinks the objects of sense exist without the mind will perhaps, in virtue thereof, be brought to admit[4] that a line but an inch long may contain innumerable parts really existing, though too small to be discerned. These errors are

[1] An infinitely divided extension, being unperceived, must be unreal—if its existence is made real only in and through actual perception, or at least imagination. The only possible extension is, accordingly, sensible extension, which could not be infinitely divided without the supposed parts ceasing to be perceived or real.

[2] 'converted Gentile'—'pagan convert'—in first edition.

[3] Cf. Locke's *Essay*, Bk. I, ch. 3, § 25.

[4] 'will perhaps in virtue thereof be brought to admit,' &c.—'will not stick to affirm,' &c.—in first edition.

grafted as well in the minds of geometricians as of other men, and have a like influence on their reasonings; and it were no difficult thing to shew how the arguments from Geometry made use of to support the infinite divisibility of extension are bottomed on them. [[1] But this, if it be thought necessary, we may hereafter find a proper place to treat of in a particular manner.] At present we shall only observe in general whence it is the mathematicians are all so fond and tenacious of that doctrine.

126. It has been observed in another place that the theorems and demonstrations in Geometry are conversant about universal ideas (sect. 15, Introd.): where it is explained in what sense this ought to be understood, to wit, the particular lines and figures included in the diagram are supposed to stand for innumerable others of different sizes; or, in other words, the geometer considers them abstracting from their magnitude: which doth not imply that he forms an abstract idea, but only that he cares not what the particular magnitude is, whether great or small, but looks on that as a thing indifferent to the demonstration. Hence it follows that a line in the scheme but an inch long must be spoken of as though it contained ten thousand parts, since it is regarded not in itself, but as it is universal; and it is universal only in its signification, whereby it *represents* innumerable lines greater than itself, in which may be distinguished ten thousand parts or more, though there may not be above an inch in *it*. After this manner, the properties of the lines signified are (by a very usual figure) transferred to the sign; and thence, through mistake, thought to appertain to it considered in its own nature.

127. Because there is no number of parts so great but it is possible there may be a line containing more, the inch-line is said to contain parts more than any assignable number; which is true, not of the inch taken absolutely, but only for the things signified by it. But men, not retaining that distinction in their thoughts, slide into a belief that the small particular line described on paper contains in itself parts innumerable. There

[1] Omitted in second edition. See the *Analyst*.

is no such thing as the ten thousandth part of an inch; but there is of a mile or diameter of the earth, which may be signified by that inch. When therefore I delineate a triangle on paper, and take one side, not above an inch for example in length, to be the radius, this I consider as divided into 10,000 or 100,000 parts, or more. For, though the ten thousandth part of that line considered in itself, is nothing at all, and consequently may be neglected without any error or inconveniency, yet these described lines, being only marks standing for greater quantities, whereof it may be the ten thousandth part is very considerable, it follows that, to prevent notable errors in practice, the radius must be taken of 10,000 parts, or more.

128. From what has been said the reason is plain why, to the end any theorem may become universal in its use, it is necessary we speak of the lines described on paper as though they contained parts which really they do not. In doing of which, if we examine the matter throughly, we shall perhaps discover that we cannot conceive an inch itself as consisting of, or being divisible into, a thousand parts, but only some other line which is far greater than an inch, and represented by it; and that when we say a line is *infinitely divisible*, we must mean[1] *a line which is infinitely great.* What we have here observed seems to be the chief cause, why to suppose the *infinite* divisibility of *finite extension* has been thought necessary in geometry.

129. The several absurdities and contradictions which flowed from this false principle might, one would think, have been esteemed so many demonstrations against it. But, by I know not what logic, it is held that proofs *a posteriori* are not to be admitted against propositions relating to Infinity. As though it were not impossible even for an Infinite Mind to reconcile contradictions; or as if anything absurd and repugnant could have a necessary connexion with truth, or flow from it. But whoever considers the weakness of this pretence, will think it was contrived on purpose to humour the laziness of the mind, which had rather acquiesce in an

[1] 'we must mean'—'we mean (if we mean anything)'—in first edition.

indolent scepticism than be at the pains to go through with a severe examination of those principles it has ever embraced for true.

130. Of late the speculations about Infinites have run so high, and grown to such strange notions, as have occasioned no small scruples and disputes among the geometers of the present age. Some there are of great note who, not content with holding that finite lines may be divided into an infinite number of parts, do yet farther maintain, that each of those Infinitesimals is itself subdivisible into an infinity of other parts, or Infinitesimals of a second order, and so on *ad infinitum*. These, I say, assert there are Infinitesimals of Infinitesimals of Infinitesimals, without ever coming to an end. So that according to them an inch does not barely contain an infinite number of parts, but an infinity of an infinity of an infinity *ad infinitum* of parts. Others there be who hold all orders of Infinitesimals below the first to be nothing at all; thinking it with good reason absurd to imagine there is any positive quantity or part of extension which, though multiplied infinitely, can ever equal the smallest given extension. And yet on the other hand it seems no less absurd to think the square, cube, or other power of a positive real root, should itself be nothing at all; which they who hold Infinitesimals of the first order, denying all of the subsequent orders, are obliged to maintain.

131. Have we not therefore reason to conclude they are *both* in the wrong, and that there is in effect no such thing as parts infinitely small, or an infinite number of parts contained in any finite quantity? But you will say that if this doctrine obtains it will follow the very foundations of Geometry are destroyed, and those great men who have raised that science to so astonishing a height, have been all the while building a castle in the air. To this it may be replied, that whatever is useful in geometry, and promotes the benefit of human life, does still remain firm and unshaken on our Principles; that science considered as practical will rather receive advantage than any prejudice from what has been said. But to set this in a due light, [[1] and shew how lines and figures may be

[1] Omitted in the second edition.

measured, and their properties investigated, without supposing finite extension to be infinitely divisible,] may be the proper business of another place [1]. For the rest, though it should follow that some of the more intricate and subtle parts of Speculative Mathematics may be pared off without any prejudice to truth, yet I do not see what damage will be thence derived to mankind. On the contrary, I think it were highly to be wished that men of great abilities and obstinate application [2] would draw off their thoughts from those amusements, and employ them in the study of such things as lie nearer the concerns of life, or have a more direct influence on the manners.

132. If it be said that several theorems, undoubtedly true, are discovered by methods in which Infinitesimals are made use of, which could never have been if their existence included a contradiction in it:—I answer, that upon a thorough examination it will not be found that in any instance it is necessary to make use of or conceive *infinitesimal* parts of *finite* lines, or even quantities less than the *minimum sensibile*: nay, it will be evident this is never done, it being impossible. [[3] And whatever mathematicians may think of Fluxions, or the Differential Calculus, and the like, a little reflexion will shew them that, in working by those methods, they do not conceive or imagine lines or surfaces less than what are perceivable to sense. They may indeed call those little and almost insensible quantities Infinitesimals, or Infinitesimals of Infinitesimals, if they please. But at bottom this is all, they being in truth finite; nor does the solution of problems require the supposing any other. But this will be more clearly made out hereafter [1].]

133. By what we have hitherto said, it is plain that very numerous and important errors have taken their rise from those false Principles which were impugned in the foregoing parts of this Treatise; and the opposites

[1] Does this refer to the intended 'Part II' of the *Principles*?

[2] 'men of great abilities and obstinate application,' &c.—'men of the greatest abilities and most obstinate application,' &c.—in first edition.

[3] What follows to the end of this section is omitted in the second edition.

of those erroneous tenets at the same time appear to be most fruitful Principles, from whence do flow innumerable consequences, highly advantageous to true philosophy as well as to religion. Particularly *Matter*, or *the absolute*[1] *existence of corporeal objects*, hath been shewn to be that wherein the most avowed and pernicious enemies of all knowledge, whether human or divine, have ever placed their chief strength and confidence. And surely if by distinguishing the real existence of unthinking things from their being perceived, and allowing them a subsistence of their own, out of the minds of spirits, no one thing is explained in nature, but on the contrary a great many inexplicable difficulties arise; if the supposition of Matter[2] is barely precarious, as not being grounded on so much as one single reason; if its consequences cannot endure the light of examination and free inquiry, but screen themselves under the dark and general pretence of *infinites being incomprehensible*; if withal the removal of *this* Matter[2] be not attended with the least evil consequence; if it be not even missed in the world, but everything as well, nay much easier conceived without it; if, lastly, both Sceptics and Atheists are for ever silenced upon supposing only spirits and ideas, and this scheme of things is perfectly agreeable both to Reason and Religion: methinks we may expect it should be admitted and firmly embraced, though it were proposed only as an *hypothesis*, and the existence of Matter[2] had been allowed possible; which yet I think we have evidently demonstrated that it is not.

134. True it is that, in consequence of the foregoing Principles, several disputes and speculations which are esteemed no mean parts of learning are rejected as useless [[3] and in effect conversant about nothing at all]. But how great a prejudice soever against our notions this may give to those who have already been deeply engaged, and made large advances in studies of that nature, yet by others we hope it will not be thought

[1] 'absolute,' i. e. abstract, independent, irrelative existence—as something of which there can be no sensuous perception or conception.

[2] Matter unrealised in perception—not the material world that is realised in percipient experience of sense.

[3] Omitted in second edition.

any just ground of dislike to the principles and tenets herein laid down, that they abridge the labour of study, and make human sciences more clear, compendious, and attainable than they were before.

135. Having despatched what we intended to say concerning the knowledge of *ideas*, the method we proposed leads us in the next place to treat of *spirits*[1]: with regard to which, perhaps, human knowledge is not so deficient as is vulgarly imagined. The great reason that is assigned for our being thought ignorant of the nature of Spirits is our not having an *idea* of it. But, surely it ought not to be looked on as a defect in a human understanding that it does not perceive the idea of Spirit, if it is manifestly impossible there should be any such idea. And this if I mistake not has been demonstrated in section 27. To which I shall here add that a Spirit has been shewn to be the only substance or support wherein unthinking beings or ideas can exist: but that this *substance* which supports or perceives ideas should itself be an idea, or like an idea, is evidently absurd.

136. It will perhaps be said that we want a *sense* (as some have imagined[2]) proper to know substances withal; which, if we had, we might know our own soul as we do a triangle. To this I answer, that in case we had a new sense bestowed upon us, we could only receive thereby some new *sensations* or *ideas of sense*. But I believe nobody will say that what he means by the terms *soul* and *substance* is only some particular sort of idea or sensation. We may therefore infer that, all things duly considered, it is not more reasonable to think our faculties defective, in that they do not furnish us with an *idea* of Spirit, or active thinking substance, than it would be if we should blame them for not being able to comprehend a *round square*[3].

[1] Sect. 135–156 treat of consequences of the New Principles, in their application to sciences concerned with our notions of *Spirit* or *Mind*; as distinguished from sciences of ideas in external Nature, and their mathematical relations. Individual mind, with Berkeley, needs data of sense in order to its realisation in consciousness; while it is dependent on God, in a relation which he does not define distinctly.

[2] e. g. Locke suggests this.

[3] Is this analogy applicable?

137. From the opinion that Spirits are to be known after the manner of an idea or sensation have risen many absurd and heterodox tenets, and much scepticism about the nature of the soul. It is even probable that this opinion may have produced a doubt in some whether they had any soul at all distinct from their body; since upon inquiry they could not find they had an idea of it. That an *idea*, which is inactive, and the existence whereof consists in being perceived, should be the image or likeness of an agent subsisting by itself, seems to need no other refutation than barely attending to what is meant by those words. But perhaps you will say that though an idea cannot resemble a Spirit in its thinking, acting, or subsisting by itself, yet it may in some other respects; and it is not necessary that an idea or image be in all respects like the original.

138. I answer, If it does not in those mentioned, it is impossible it should represent it in any other thing. Do but leave out the power of willing, thinking, and perceiving ideas, and there remains nothing else wherein the idea can be like a spirit. For, by the word *spirit* we mean only that which thinks, wills, and perceives; this, and this alone, constitutes the signification of that term. If therefore it is impossible that any degree of those powers should be represented in an idea [[1] or notion], it is evident there can be no idea [[1] or notion] of a Spirit.

139. But it will be objected that, if there is no *idea* signified by the terms *soul*, *spirit*, and *substance*, they are wholly insignificant, or have no meaning in them. I answer, those words do mean or signify a real thing; which is neither an idea nor like an idea, but that which perceives ideas, and wills, and reasons about them. What I am *myself*, that which I denote by the term *I*, is the same with what is meant by *soul*, or *spiritual substance*. [[2] But if I should say that *I* was nothing, or that *I* was an *idea* or *notion*, nothing could be more evidently absurd than either of these propositions.] If it be said that

[1] Omitted in second edition, as he had previously learned to distinguish *notion* from *idea*. Cf. sect. 89, 142.

[2] Ibid. In the omitted passage it will be seen that he makes *idea* and *notion* synonymous.

this is only quarrelling at a word, and that, since the immediate significations of other names are by common consent called *ideas*, no reason can be assigned why that which is signified by the name *spirit* or *soul* may not partake in the same appellation. I answer, all the unthinking objects of the mind agree in that they are entirely passive, and their existence consists only in being perceived: whereas a *soul* or *spirit* is an active being, whose existence consists, not in being perceived, but in perceiving ideas and thinking[1]. It is therefore necessary, in order to prevent equivocation and confounding natures perfectly disagreeing and unlike, that we distinguish between *spirit* and *idea*. See sect. 27.

140. In a large sense indeed, we may be said to have an idea [[2]or rather a notion] of *spirit*. That is, we understand the meaning of the word, otherwise we could not affirm or deny anything of it. Moreover, as we conceive the ideas that are in the minds of other spirits by means of our own, which we suppose to be resemblances of them, so we know other spirits by means of our own soul: which in that sense is the image or idea of them; it having a like respect to other spirits that blueness or heat by me perceived has to those ideas perceived by another[3].

141. [[4]The natural immortality of the soul is a necessary consequence of the foregoing doctrine. But before we attempt to prove this, it is fit that we explain the meaning of that tenet.] It must not be supposed that they who assert the natural immortality of the soul[5] are of opinion that it is absolutely incapable of annihilation even by the infinite power of the Creator who first gave it being, but only that it is not liable to be broken or

[1] Is the reality of mind as dependent on having ideas (of some sort) as ideas are on mind; although mind is more deeply and truly real than its ideas are?

[2] Introduced in second edition.

[3] We know *other finite persons* through sense-presented phenomena, but not as themselves phenomena. Cf. sect. 145. It is a mediate knowledge that we have of other persons. The question about the individuality of finite egos, as distinguished from God, Berkeley has not touched.

[4] These sentences are omitted in the second edition.

[5] 'the soul,' i. e. the individual Ego.

dissolved by the ordinary laws of nature or motion. They indeed who hold the soul of man to be only a thin vital flame, or system of animal spirits, make it perishing and corruptible as the body; since there is nothing more easily dissipated than such a being, which it is naturally impossible should survive the ruin of the tabernacle wherein it is inclosed. And this notion hath been greedily embraced and cherished by the worst part of mankind, as the most effectual antidote against all impressions of virtue and religion. But it hath been made evident that bodies, of what frame or texture soever, are barely passive ideas in the mind, which is more distant and heterogeneous from them than light is from darkness[1]. We have shewn that the soul is indivisible, incorporeal, unextended; and it is consequently incorruptible. Nothing can be plainer than that the motions, changes, decays, and dissolutions which we hourly see befal natural bodies (and which is what we mean by the *course of nature*) cannot possibly affect an active, simple, uncompounded substance: such a being therefore is indissoluble by the force of nature; that is to say, *the soul of man* is *naturally immortal*[2].

142. After what has been said, it is, I suppose, plain that our souls are not to be known in the same manner as senseless, inactive objects, or by way of *idea*. *Spirits* and *ideas* are things so wholly different, that when we say 'they exist,' 'they are known,' or the like, these words

[1] Cf. sect. 2; 25–27.

[2] This is Berkeley's application of his new conception of the reality of matter, to the final human question of the self-conscious existence of the individual human Ego, after physical death. Philosophers and theologians were accustomed in his generation to ground their argument for a future life on the metaphysical assumption of the physical indivisibility of our self-conscious spirit, and on our contingent connexion with the body. 'Our bodies,' says Bishop Butler, 'are no more *ourselves*, or *part of ourselves*, than any other matter around us.' This train of thought is foreign to us at the present day, when men of science remind us that self-conscious life is found only in correlation with corporeal organisation, whatever may be the abstract possibility. Hope of continued life after physical death seems to depend on ethical considerations more than on metaphysical arguments, and on what is suggested by faith in the final outcome of personal life in a *divinely* constituted universe.

must not be thought to signify anything common to both natures [1]. There is nothing alike or common in them; and to expect that by any multiplication or enlargement of our faculties, we may be enabled to know a spirit as we do a triangle, seems as absurd as if we should hope to *see a sound*. This is inculcated because I imagine it may be of moment towards clearing several important questions, and preventing some very dangerous errors concerning the nature of the soul.

[[2] We may not, I think, strictly be said to have an *idea* of an active being, or of an action; although we may be said to have a *notion* of them. I have some knowledge or notion of *my mind*, and its acts about ideas; inasmuch as I know or understand what is meant by these words. What I know, that I have some notion of. I will not say that the terms *idea* and *notion* may not be used convertibly, if the world will have it so. But yet it conduceth to clearness and propriety, that we distinguish things very different by different names. It is also to be remarked that, all *relations* including an act of the mind [3], we cannot so properly be said to have an idea, but rather a notion, of the relations and habitudes between things. But if, in the modern way [4], the word *idea* is extended to *spirits*, and *relations*, and *acts*, this is, after all, an affair of verbal concern.]

143. It will not be amiss to add, that the doctrine of *abstract ideas* has had no small share in rendering those sciences intricate and obscure which are particularly conversant about spiritual things. Men have imagined they could frame abstract notions of the *powers* and *acts* of the mind, and consider them prescinded as well from the mind or spirit itself, as from their respective objects and effects. Hence a great number of dark and am-

[1] Mind and the ideas presented to the senses are at opposite poles of existence. But he does not say that, thus opposed, they are each independent of the other.

[2] What follows was introduced in the second edition, in which *notion* is contrasted with *idea*.

[3] Here is a germ of Kantism. But Berkeley has not analysed that activity of mind which constitutes *relation*, nor systematically unfolded the relations involved in the rational constitution of experience. There is more disposition to this in *Siris*.

[4] As with Locke, for example.

biguous terms, presumed to stand for abstract notions, have been introduced into metaphysics and morality; and from these have grown infinite distractions and disputes amongst the learned[1].

144. But, nothing seems more to have contributed towards engaging men in controversies and mistakes with regard to the nature and operations of the mind, than the being used to speak of those things in terms borrowed from sensible ideas. For example, the will is termed the *motion* of the soul: this infuses a belief that the mind of man is as a ball in motion, impelled and determined by the objects of sense, as necessarily as that is by the stroke of a racket. Hence arise endless scruples and errors of dangerous consequence in morality. All which, I doubt not, may be cleared, and truth appear plain, uniform, and consistent, could but philosophers be prevailed on to [[2]depart from some received prejudices and modes of speech, and] retire into themselves, and attentively consider their own meaning. [[2]But the difficulties arising on this head demand a more particular disquisition than suits with the design of this treatise.]

145. From what hath been said, it is plain that we cannot know the existence of *other spirits* otherwise than by their operations, or the ideas by them, excited in us. I perceive several motions, changes, and combinations of ideas, that inform me there are certain particular agents, like myself, which accompany them, and concur in their production. Hence, the knowledge I have of other spirits is not immediate, as is the knowledge of my ideas; but depending on the intervention of ideas, by me referred to agents or spirits distinct from myself, as effects or concomitant signs[3].

[1] Note this condemnation of the tendency to substantiate 'powers of mind.'

[2] Omitted in second edition. Berkeley was after all reluctant to 'depart from received modes of speech,' notwithstanding their often misleading associations.

[3] This is one of the notable sections in the *Principles*, as it suggests the *rationale* of Berkeley's rejection of Panegoism or Solipsism. Is this consistent with his conception of the reality of the material world? It is objected (e. g. by Reid) that ideal realism dissolves our faith in the existence of other persons. The difficulty is to shew how appearances presented to my senses, which are sensuous and subjective, can be media of communication between

146. But, though there be some things which convince us human agents are concerned in producing them, yet it is evident to every one that those things which are called the Works of Nature, that is, the far greater part of the ideas or sensations perceived by us, are *not* produced by, or dependent on, the wills of *men*. There is therefore some other Spirit that causes them; since it is repugnant[1] that they should subsist by themselves. See sect. 29. But, if we attentively consider the constant regularity, order, and concatenation of natural things, the surprising magnificence, beauty and perfection of the larger, and the exquisite contrivance of the smaller parts of the creation, together with the exact harmony and correspondence of the whole, but above all the never-enough-admired laws of pain and pleasure, and the instincts or natural inclinations, appetites, and passions of animals;—I say if we consider all these things, and at the same time attend to the meaning and import of the attributes One, Eternal, Infinitely Wise, Good, and Perfect, we shall clearly perceive that they belong to the aforesaid Spirit, 'who works all in all' and 'by whom all things consist.'

147. Hence, it is evident that God is known as certainly and immediately as any other mind or spirit whatsoever, distinct from ourselves. We may even assert that the existence of God is far more evidently perceived than the existence of men; because the effects of Nature are infinitely more numerous and considerable than those ascribed to human agents. There is not any one mark that denotes a man, or effect produced by him, which does not more strongly evince the being of that Spirit who is the Author of Nature[2]. For it is evident that, in affecting other persons, the will of man hath no other object than barely the motion of the limbs of his body; but that such a motion should be attended by, or excite

persons. The question carries us back to the theistic presupposition involved in the trustworthiness of experience—which is adapted to deceive if I am the only person existing. With Berkeley a chief function of ideas of sense is to signify other persons to each person. See *Alciphron*, Dial. IV; *New Theory of Vision Vindicated*, and *Siris*.

[1] 'repugnant'—for it would involve thought in incoherence, by paralysis of its indispensable causal presupposition.

[2] Is not God the indispensable presupposition of trustworthy experience, rather than an empirical inference?

any idea in the mind of another, depends wholly on the will of the Creator. He alone it is who, 'upholding all things by the word of His power,' maintains that intercourse between spirits whereby they are able to perceive the existence of each other[1]. And yet this pure and clear Light which enlightens everyone is itself invisible [[2] to the greatest part of mankind].

148. It seems to be a general pretence of the unthinking herd that they cannot *see* God. Could we but see Him, say they, as we see a man, we should believe that He is, and believing obey His commands. But alas, we need only open our eyes to see the Sovereign Lord of all things, with a *more* full and clear view than we do any one of our fellow-creatures. Not that I imagine we see God (as some will have it) by a direct and immediate view; or see corporeal things, not by themselves, but by seeing that which represents them in the essence of God; which doctrine is, I must confess, to me incomprehensible[3]. But I shall explain my meaning. A human spirit or person is not perceived by sense, as not being an idea. When therefore we see the colour, size, figure, and motions of a man, we perceive only certain sensations or ideas excited in our own minds; and these being exhibited to our view in sundry distinct collections, serve to mark out unto us the existence of finite and created spirits like ourselves. Hence it is plain we do not see a man, if by *man* is meant, that which lives, moves, perceives, and thinks as we do: but only such a certain collection of ideas, as directs us to think there is a distinct principle of thought and motion, like to ourselves, accompanying and represented by it. And after the same manner we see

[1] This suggests an explanation of the objective reality and significance of *ideas of sense*; through which they become media of social intercourse in the fundamentally divine universe. God so regulates the sense-given ideas of which human beings are individually percipient, as that, *while numerically different, as in each mind*, those ideas are nevertheless a sufficient medium for social intercourse, if the Power universally at work is morally trustworthy. Unless our God-given experience is deceiving, Solipsism is not a necessary result of the fact that no one but myself can be percipient of my sensuous experience.

[2] Omitted in second edition.

[3] Malebranche, as understood by Berkeley. See *Recherche*, Liv. III. p. ii. ch. 6, &c.

God: all the difference is that, whereas some one finite and narrow assemblage of ideas denotes a particular human mind, whithersoever we direct our view we do at all times and in all places perceive manifest tokens of the Divinity: everything we see, hear, feel, or anywise perceive by sense, being a sign or effect of the power of God; as is our perception of those very motions which are produced by men[1].

149. It is therefore plain that nothing can be more evident to any one that is capable of the least reflexion than the existence of God, or a Spirit who is intimately present to our minds, producing in them all that variety of ideas or sensations which continually affect us, on whom we have an absolute and entire dependence, in short 'in whom we live, and move, and have our being.' That the discovery of this great truth, which lies so near and obvious to the mind, should be attained to by the reason of so very few, is a sad instance of the stupidity and inattention of men, who, though they are surrounded with such clear manifestations of the Deity, are yet so little affected by them that they seem, as it were, blinded with excess of light[2].

150. But you will say—Hath Nature no share in the production of natural things, and must they be all ascribed to the immediate and sole operation of God? I answer, If by *Nature* is meant only the *visible series* of effects or sensations imprinted on our minds according to certain fixed and general laws, then it is plain that Nature, taken in this sense, cannot produce anything at all[3]. But if by *Nature* is meant some being distinct from God, as well as from the laws of nature and things perceived by sense, I must confess that word is to me an empty sound, without any intelligible meaning annexed to it. Nature, in this acceptation, is a vain chimera, introduced by those heathens who had not just notions of the omnipresence

[1] For all finite persons *somehow* live, and move, and have their being 'in God.' The existence of *eternal* living Mind, and the *present* existence of other men, are both *inferences*, resting on the same foundation, according to Berkeley.

[2] The theistic trust in which our experience is rooted remaining latent, or being unintelligent.

[3] Cf. sect. 25–28, 51–53, 60–66. His conception of Divine causation in Nature, as the constant omnipresent agency in all natural law, is the deepest part of his philosophy. It is pursued in the *De Motu*.

and infinite perfection of God. But it is more unaccountable that it should be received among Christians, professing belief in the Holy Scriptures, which constantly ascribe those effects to the immediate hand of God that heathen philosophers are wont to impute to Nature. 'The Lord, He causeth the vapours to ascend; He maketh lightnings with rain; He bringeth forth the wind out of His treasures.' Jerem. x. 13. 'He turneth the shadow of death into the morning, and maketh the day dark with night.' Amos v. 8. 'He visiteth the earth, and maketh it soft with showers: He blesseth the springing thereof, and crowneth the year with His goodness; so that the pastures are clothed with flocks, and the valleys are covered over with corn.' See Psal. lxv. But, notwithstanding that this is the constant language of Scripture, yet we have I know not what aversion from believing that God concerns Himself so nearly in our affairs. Fain would we suppose Him at a great distance off, and substitute some blind unthinking deputy in His stead; though (if we may believe Saint Paul) 'He be not far from every one of us.'

151. It will, I doubt not, be objected that the slow, gradual, and roundabout methods observed in the production of natural things do not seem to have for their cause the *immediate* hand of an Almighty Agent: besides, monsters, untimely births, fruits blasted in the blossom, rains falling in desert places, miseries incident to human life, and the like, are so many arguments that the whole frame of nature is not immediately actuated and superintended by a Spirit of infinite wisdom and goodness. But the answer to this objection is in a good measure plain from sect. 62; it being visible that the aforesaid methods of nature are absolutely necessary in order to working by the most simple and general rules, and after a steady and consistent manner; which argues both the wisdom and goodness of God[1]. [[2] For, it doth hence follow that the finger of God is not so conspicuous to the resolved and careless sinner; which gives him an opportunity to harden in his impiety and grow ripe for vengeance. (Vid. sect. 57.)] Such is the artificial contrivance of this mighty

[1] Is not the unbeginning and unending natural evolution, an articulate revelation of Eternal Spirit or Active Reason at the heart of the whole?

[2] Omitted in second edition.

machine of Nature that, whilst its motions and various phenomena strike on our senses, the Hand which actuates the whole is itself unperceivable to men of flesh and blood. 'Verily' (saith the prophet) 'thou art a God that hidest thyself.' Isaiah xlv. 15. But, though the Lord conceal Himself from the eyes of the sensual and lazy, who will not be at the least expense of thought[1], yet to an unbiassed and attentive mind, nothing can be more plainly legible than the intimate presence of an All-wise Spirit, who fashions, regulates, and sustains the whole system of Being. It is clear, from what we have elsewhere observed, that the operating according to general and stated laws is so necessary for our guidance in the affairs of life, and letting us into the secret of nature, that without it all reach and compass of thought, all human sagacity and design, could serve to no manner of purpose. It were even impossible there should be any such faculties or powers in the mind. See sect. 31. Which one consideration abundantly outbalances whatever particular inconveniences may thence arise[2].

152. We should further consider, that the very blemishes and defects of nature are not without their use, in that they make an agreeable sort of variety, and augment the beauty of the rest of the creation, as shades in a picture serve to set off the brighter and more enlightened parts. We would likewise do well to examine, whether our taxing the waste of seeds and embryos, and accidental destruction of plants and animals before they come to full maturity, as an imprudence in the Author of nature, be not the effect of prejudice contracted by our familiarity with impotent and saving mortals. In *man* indeed a thrifty management of those things which he cannot procure without much pains and industry may be esteemed wisdom. But we must not imagine that the inexplicably fine machine of an animal or vegetable costs the great Creator any more pains or trouble in its production than a pebble does; nothing being more evident than that an Omnipotent Spirit can indif-

[1] So Pascal in the *Pensées*.

[2] Divine reason ever active in Nature is the necessary correlate to reason in man; inasmuch as otherwise the changing universe in which we live would be unfit to be reasoned about or acted in.

ferently produce everything by a mere *fiat* or act of his will. Hence it is plain that the splendid profusion of natural things should not be interpreted weakness or prodigality in the Agent who produces them, but rather be looked on as an argument of the riches of His power.

153. As for the mixture of pain or uneasiness which is in the world, pursuant to the general laws of Nature, and the actions of finite, imperfect Spirits, this, in the state we are in at present, is indispensably necessary to our well-being. But our prospects are too narrow. We take, for instance, the idea of some one particular pain into our thoughts, and account it *evil*. Whereas, if we enlarge our view, so as to comprehend the various ends, connexions, and dependencies of things, on what occasions and in what proportions we are affected with pain and pleasure, the nature of human freedom, and the design with which we are put into the world; we shall be forced to acknowledge that those particular things which, considered in themselves, appear to be evil, have the nature of good, when considered as linked with the whole system of beings [1].

154. From what hath been said, it will be manifest to any considering person, that it is merely for want of attention and comprehensiveness of mind that there are any favourers of Atheism or the Manichean Heresy to be found. Little and unreflecting souls may indeed burlesque the works of Providence; the beauty and order whereof they have not capacity, or will not be at the pains, to comprehend [2]. But those who are masters of any justness and extent of thought, and are withal used to reflect, can never sufficiently admire the divine traces

[1] The existence of *moral* evil, or what ought not to exist, is *the* difficulty which besets faith in the fundamental divinity or goodness of the universe. Yet that faith is presupposed in interpretation of nature, which proceeds on the *postulate* of universal order; and this implies the moral trustworthiness of the world which we begin to realise when we begin to be conscious. That we are living and having our being in omnipotent goodness is thus not an inference, but the implied basis of all real inferences. I have expanded this thought in my *Philosophy of Theism*. We cannot *prove* God, for we must assume God, as the basis of all proof. Faith even in the uniformity of nature is virtually faith in omnipotent goodness immanent in the universe.

[2] So Leibniz in his *Theodicée*, which was published in the same year as Berkeley's *Principles*.

of Wisdom and Goodness that shine throughout the economy of Nature. But what truth is there which glares so strongly on the mind that, by an aversion of thought, a wilful shutting of the eyes, we may not escape seeing it? Is it therefore to be wondered at, if the generality of men, who are ever intent on business or pleasure, and little used to fix or open the eye of their mind, should not have all that conviction and evidence of the Being of God which might be expected in reasonable creatures[1]?

155. We should rather wonder that men can be found so stupid as to neglect, than that neglecting they should be unconvinced of such an evident and momentous truth[2]. And yet it is to be feared that too many of parts and leisure, who live in Christian countries, are, merely through a supine and dreadful negligence, sunk into a sort of Atheism. [[3]They cannot say there is not a God, but neither are they convinced that there is. For what else can it be but some lurking infidelity, some secret misgivings of mind with regard to the existence and attributes of God, which permits sinners to grow and harden in impiety?] Since it is downright impossible that a soul pierced and enlightened with a thorough sense of the omnipresence, holiness, and justice of that Almighty Spirit should persist in a remorseless violation of His laws. We ought, therefore, earnestly to meditate and dwell on those important points; that so we may attain conviction without all scruple 'that the eyes of the Lord are in every place, beholding the evil and the good; that He is with us and keepeth us in all places whither we go, and giveth us bread to eat and raiment to put on;' that He is present and con-

[1] The divine presupposition, latent in all human reasoning and experience, is hid from the unreflecting, in whom the higher life is dormant, and the ideal in the universe is accordingly undiscerned. Unless the universe is assumed to be physically and morally trustworthy, i.e. unless God is presupposed, even natural science has no adequate foundation.

[2] Our necessarily incomplete knowledge of the Universe in which we find ourselves is apt to disturb the fundamental faith, that the phenomena presented to us are significant of God. Yet we *tacitly assume* that they are thus significant when we interpret real experience, physical or moral.

[3] Omitted in second edition.

scious to our innermost thoughts; and, that we have a most absolute and immediate dependence on Him. A clear view of which great truths cannot choose but fill our hearts with an awful circumspection and holy fear, which is the strongest incentive to Virtue, and the best guard against Vice.

156. For, after all, what deserves the first place in our studies is, the consideration of GOD and our DUTY; which to promote, as it was the main drift and design of my labours, so shall I esteem them altogether useless and ineffectual if, by what I have said, I cannot inspire my readers with a pious sense of the Presence of God; and, having shewn the falseness or vanity of those barren speculations which make the chief employment of learned men, the better dispose them to reverence and embrace the salutary truths of the Gospel; which to know and to practise is the highest perfection of human nature.

THREE DIALOGUES

BETWEEN

HYLAS AND PHILONOUS

THE DESIGN OF WHICH IS PLAINLY TO DEMONSTRATE
THE REALITY AND PERFECTION OF

HUMAN KNOWLEDGE

THE INCORPOREAL NATURE OF THE

SOUL

AND THE IMMEDIATE PROVIDENCE OF A

DEITY

IN OPPOSITION TO

SCEPTICS AND ATHEISTS

ALSO TO OPEN A METHOD FOR RENDERING THE SCIENCES MORE
EASY, USEFUL, AND COMPENDIOUS

First published in 1713

EDITOR'S PREFACE

TO THE

THREE DIALOGUES BETWEEN HYLAS AND PHILONOUS

This work is the gem of British metaphysical literature. Berkeley's claim to be the great modern master of Socratic dialogue rests, perhaps, upon *Alciphron*, which surpasses the conversations between Hylas and Philonous in expression of individual character, and in dramatic effect. Here conversation is adopted as a convenient way of treating objections to the conception of the reality of Matter which had been unfolded systematically in the book of *Principles*. But the lucid thought, the colouring of fancy, the glow of human sympathy, and the earnestness that pervade the subtle reasonings pursued through these dialogues, are unique in English metaphysical literature. Except perhaps Hume and Ferrier, none approach Berkeley in the art of uniting metaphysical thought with easy, graceful, and transparent style. Our surprise and admiration are increased when we recollect that this charming production of reason and imagination came from Ireland, at a time when that country was scarcely known in the world of letters and philosophy.

The immediate impression produced by the publication

of the *Principles*, is shewn in Berkeley's correspondence with Sir John Percival. Berkeley was eager to hear what people had to say for or against what looked like a paradox apt to shock the reader; but in those days he was not immediately informed by professional critics. 'If when you receive my book'—he wrote from Dublin in July, 1710, to Sir John Percival[1], then in London,—'you can procure me the opinion of some of your acquaintances who are thinking men, addicted to the study of natural philosophy and mathematics, I shall be extremely obliged to you.' In the following month he was informed by Sir John that it was 'incredible what prejudice can work in the best geniuses, even in the lovers of novelty. For I did but name the subject matter of your book of *Principles* to some ingenious friends of mine and they immediately treated it with ridicule, at the same time refusing to read it, which I have not yet got one to do. A physician of my acquaintance undertook to discover your person, and argued you must needs be mad, and that you ought to take remedies. A bishop pitied you, that a desire of starting something new should put you upon such an undertaking. Another told me that you are not gone so far as a gentleman in town, who asserts not only that there is no such thing as Matter, but that we ourselves have no being at all.'

Berkeley's reply is interesting. 'I am not surprised,' he says, 'that I should be ridiculed by those who won't take the pains to understand me. If the raillery and scorn of those who criticise what they will not be at the pains to understand had been sufficient to deter men from making any attempts towards curing the ignorance and errors of mankind, we should not have been troubled with some very fair improvements in knowledge. The common

[1] For the following extracts from previously unpublished correspondence of Berkeley and Sir John Percival, I am indebted to the kindness of his descendant, the late Lord Egmont.

cry's being against any opinion seems to me, so far from proving false, that it may with as good reason pass for an argument of its truth. However, I imagine that whatever doctrine contradicts vulgar and settled opinion had need be introduced with great caution into the world. For this reason it was that I omitted all mention of the non-existence of Matter in the title-page, dedication, preface and introduction to the *Treatise on the Principles of Human Knowledge*; that so the notion might steal unawares upon the reader, who probably might never have meddled with the book if he had known that it contained such paradoxes.'

With characteristic fervour he disclaims 'variety and love of paradox' as motives of the book of *Principles*, and professes faith in the unreality of abstract unperceived Matter, a faith which he has held for some years, 'the conceit being at first warm in my imagination, but since carefully examined, both by my own judgment and that of ingenious friends.' What he especially complained of was 'that men who have never considered my book should confound me with the sceptics, who doubt the existence of sensible things, and are not positive as to any one truth, no, not so much as their own being—which I find by your letter is the case of some wild visionist now in London. But whoever reads my book with attention will see that there is a direct opposition between the principles that are contained in it and those of the sceptics, and that I question not the existence of anything we perceive by our senses. I do not deny the existence of the sensible things which Moses says were created by God. They existed from all eternity, in the Divine Intellect; and they became perceptible (i. e. were created) in the same manner and order as is described in Genesis. For I take creation to belong to things only as they respect finite spirits; there being nothing new to God. Hence it follows that the act of creation consists in

God's willing that those things should become perceptible to other spirits which before were known only to Himself. Now both reason and scripture assure us that there *are* other spirits besides men, who, 'tis possible, might have perceived this visible world as it was successively exhibited to their view before man's creation. Besides, for to agree with the Mosaic account of the creation, it's sufficient if we suppose that a man, in case he was existing at the time of the chaos of sensible things, might have perceived all things formed out of it, in the very order set down in scripture; all which is in no way repugnant to my principles.'

Sir John in his next letter, written from London in October, 1716, reports that the book of *Principles* had fallen into the hands of the highest living English authority in metaphysical theology, Samuel Clarke, who had produced his *Demonstration of the Being and Attributes of God* four years before. The book had also been read by Whiston, Newton's successor at Cambridge. 'I can only report at second-hand,' he says, 'that they think you a fair arguer, and a clear writer; but they say your first principles you lay down are false. They look upon you as an extraordinary genius, ranking you with Father Malebranche, Norris, and another whose name I forget, all of whom they think extraordinary men, but of a particular turn of mind, and their labours of little use to mankind, on account of their abstruseness. This may arise from these gentlemen not caring to think after a new manner, which would oblige them to begin their studies anew; or else it may be the strength of prejudice.'

Berkeley was vexed by this treatment on the part of Clarke and Whiston. He sent under Sir John's care a letter to each of them, hoping through him to discover 'their reasons against his notions, as truth is his sole aim.' 'As to what is said of ranking me with Father Male-

branche and Mr. Norris, whose writings are thought to be too fine-spun to be of any great use to mankind, I have this answer, that I think the notions I embrace are not in the least agreeing with theirs, but indeed plainly inconsistent with them in the main points, inasmuch as I know few writers I take myself at bottom to differ more from than from them. Fine-spun metaphysics are what on all occasions I declare against, and if any one shall shew anything of that sort in my Treatise I will willingly correct it.' Sir John delivered the letters to two friends of Clarke and Whiston, and reported that 'Dr. Clarke told his friend in reply, that he did not care to write you his thoughts, because he was afraid it might draw him into a dispute upon a matter which was already clear to him. He thought your first principles you go on are false; but he was a modest man, his friend said, and uninclined to shock any one whose opinions on things of this nature differed from his own.' This was a disappointment to the ardent Berkeley. 'Dr. Clarke's conduct seems a little surprising,' he replies. 'That an ingenious and candid person (as I take him to be) should refuse to shew me where my error lies is something unaccountable. I never expected that a gentleman otherwise so well employed as Dr. Clarke should think it worth his while to enter into a dispute with me concerning any notions of mine. But, seeing it was clear to him I went upon false principles, I hoped he would vouchsafe, in a line or two, to point them out to me, that so I may more closely review and examine them. If he but once did me this favour, he need not apprehend I should give him any further trouble. I should be glad if you have opportunity that you would let his friend know this. There is nothing that I more desire than to know thoroughly all that can be said against what I take for truth.' Clarke, however, was not to be drawn. The incident is thus referred to by Whiston, in his *Memoirs* of Clarke. 'Mr. Berkeley,' he

says, 'published in 1710, at Dublin, the metaphysical notion, that matter was not a real thing[1]; nay, that the common opinion of its reality was groundless, if not ridiculous. He was pleased to send Mr. Clarke and myself each of us a book. After we had perused it, I went to Mr. Clarke to discourse with him about it, to this effect, that I, being not a metaphysician, was not able to answer Mr. Berkeley's subtle premises, though I did not believe his absurd conclusions. I therefore desired that he, who was deep in such subtleties, but did not appear to believe Mr. Berkeley's conclusion, would answer him. *Which task he declined.*'

What Clarke's criticism of Berkeley might have been is suggested by the following sentences in his *Remarks on Human Liberty*, published seven years after this correspondence: 'The case as to the proof of our free agency is exactly the same as in that notable question, whether the [material] world exists or no? There is no demonstration of it from experience. There always remains a bare possibility that the Supreme Being may have so framed my mind, that I shall always be necessarily deceived[1] in every one of my perceptions as in a dream—though possibly there be no material world, nor any other creature existing besides myself. And yet no man in his senses argues from thence, that experience is no proof to us of the existence of things. The bare physical possibility too of our being so framed by the Author of Nature as to be unavoidably deceived in this matter by every experience of every action we perform, is no more any ground to doubt the truth of our liberty, than the bare natural possibility of our being all our lifetime in a dream, deceived in our [natural] belief of the existence of

[1] What Berkeley seeks to shew is, not that the world of the senses is unreal, but in what its reality consists. Is it inexplicable chaos, or explicable expression of ever active Intelligence, more or less interpreted in natural science?

the material world, is any just ground to doubt the reality of its existence.' Berkeley would hardly have accepted this analogy. Does the conception of a material world being dependent on percipient mind for its reality imply *deception* on the part of the 'Supreme Being'? 'Dreams,' in ordinary language, may signify illusory fancies during sleep, and so understood the term is misapplied to a universally mind-dependent universe with its steady natural order. Berkeley disclaims emphatically any doubt of the reality of the sensible world, and professes only to shew in what its reality consists, or its dependence upon percipient life as the indispensable realising factor. To suppose that we can be 'necessarily deceived in every one of our perceptions' is to interpret the universe atheistically, and virtually obliges us in final nescience to acknowledge that it is wholly uninterpretable; so that experience is impossible, because throughout unintelligible. The moral trustworthiness or perfect goodness of the Universal Power is I suppose the fundamental postulate of science and human life. If all our temporal experience can be called a dream it must at any rate be a dream of the sort supposed by Leibniz. 'Nullo argumento absolute demonstrari potest, dari corpora; nec quidquam prohibet *somnia quædam bene ordinata* menti nostræ objecta esse, quæ a nobis vera judicentur, et ob consensum inter se quoad usum veris equivalent[1].'

The three *Dialogues* discuss what Berkeley regarded as the most plausible Objections, popular and philosophical, to his account of living Mind or Spirit, as the indispensable factor and final cause of the reality of the material world.

The principal aim of the *First Dialogue* is to illustrate

[1] Leibniz: *De modo distinguendi Phenomena Realia ab Imaginariis* (1707).

the contradictory or unmeaning character and sceptical tendency of the common philosophical opinion—that we perceive in sense a material world which is *real* only in as far as it can exist in absolute independence of perceiving mind. The impossibility of any of the qualities in which Matter is manifested to man—the primary qualities not less than the secondary—having real existence in a mindless or unspiritual universe is argued and illustrated in detail. Abstract Matter, unrealised in terms of percipient life, is meaningless, and the material world becomes real only in and through living perception. And Matter, as an abstract substance without qualities, cannot, without a contradiction, it is also argued, be presented or represented, in sense. What is called *matter* is thus melted in a spiritual solution, from which it issues the flexible and intelligible medium of intercourse for spiritual beings such as men are; whose faculties moreover are educated in interpreting the cosmical order of the phenomena presented to their senses.

The *Second Dialogue* is in the first place directed against modifications of the scholastic account of Matter, which attributes our knowledge of it to inference, founded on sense-ideas assumed to be representative, or not presentative of the reality. The advocates of Matter independent and supreme, are here assailed in their various conjectures—that this Matter may be the active Cause, or the Instrument, or the Occasion of our sense-experience; or that it is an Unknowable Something somehow connected with that experience. It is argued in this and in the preceding Dialogue, by *Philonous* (who personates Berkeley), that unrealised Matter—intending by that term either a qualified substance, or a Something of which we cannot affirm anything—is not merely unproved, but a proved impossibility: it must mean nothing,

or it must mean a contradiction, which comes to the same thing. It is not *perceived*; nor can it be *suggested* by what we perceive; nor *demonstrated* by reasoning; nor *believed in* as an article in the fundamental faith of intuitive reason. The only consistent theory of the universe accordingly implies that concrete realities must all be either (a) phenomena presented to the senses, or else (b) active spirits percipient of presented phenomena. And neither of these two sorts of concrete realities is strictly speaking independent of the other; although the latter, identical amid the variations of the sensuous phenomena, are deeper and more real than the mere data of the senses. The *Second Dialogue* ends by substituting, as concrete and intelligible Realism, the universal and constant dependence of the material world upon active living Spirit, in place of the abstract hypothetical and unintelligible Realism, which defends Matter unrealised in percipient life, as the type of reality.

In the *Third Dialogue* plausible objections to this conception of what the reality of the material world means are discussed.

Is it said that the new conception is sceptical, and Berkeley another Protagoras, on account of it? His answer is, that the *reality* of sensible things, as far as man can in any way be concerned with them, does not consist in what cannot be perceived, suggested, demonstrated, or even conceived, but in phenomena actually seen and touched, and in the working faith that future sense-experience may be anticipated by the analogies of present sense-experience.

But is not this negation of the Matter that is assumed to be real and independent of Spirit, an unproved conjecture? It is answered, that the affirmation of this abstract matter is itself a mere conjecture, and one self-

convicted by its implied contradictions, while its negation is only a simple falling back on the facts of experience, without any attempt to explain them.

Again, is it objected that the *reality* of sensible things involves their continued reality during intervals of our perception of them? It is answered, that sensible things are indeed permanently dependent on Mind, but not on this, that, or the other finite embodied spirit.

Is it further alleged that the reality of Spirit or Mind is open to all the objections against independent Matter; and that, if we deny *this* Matter, we must in consistency allow that Spirit can be only a succession of isolated feelings? The answer is, that there is no parity between self-conscious Spirit, and Matter out of all relation to any Spirit. We find, in memory, our own personality and identity; that *we* are not our ideas, 'but somewhat else'—a thinking, active principle, that perceives, knows, wills, and operates about ideas, and that is revealed as continuously real. Each person is conscious of himself; and may reasonably infer the existence of other self-conscious persons, more or less like what he is conscious of in himself. A universe of self-conscious persons, with their common sensuous experiences all under cosmical order, is not open to the contradictions involved in a pretended universe of Matter, independent of percipient realising Spirit.

Is it still said that sane people cannot help distinguishing between the *real existence* of a thing and its *being perceived*? It is answered, that all they are entitled to mean is, to distinguish between being perceived exclusively by me, and being independent of the perception of all sentient or conscious beings.

Does an objector complain that this ideal realism dissolves the distinction between facts and fancies? He is reminded of the meaning of the word *idea*. That term

is not limited by Berkeley to chimeras of fancy: it is applied also to the objective phenomena of our sense-experience.

Is the supposition that Spirit is the only real Cause of all changes in nature declaimed against as baseless? It is answered, that the supposition of unthinking Power at the heart of the cosmos of sensible phenomena is absurd.

Is the negation of Abstract Matter repugnant to the common belief of mankind? It is argued in reply, that this unrealised Matter is foreign to common belief, which is incapable of even entertaining the conception; and which only requires to reflect upon what it does entertain to be satisfied with a relative or ideal reality for sensible things.

But, if sensible things are the real things, the real moon, for instance, it is alleged, can be only a foot in diameter. It is maintained, in opposition to this, that the term *real moon* is applied only to what is an inference from the moon, one foot in diameter, which we immediately perceive; and that the former is a part of our previsive or mediate inference, due to what is perceived.

The dispute, after all, is merely verbal, it is next objected; and, since all parties refer the data of the senses and the *things* which they compose to *a* Power external to each finite percipient, why not call that Power, whatever it may be, Matter, and not Spirit? The reply is, that this would be an absurd misapplication of language.

But may we not, it is next suggested, assume the possibility of a third nature—neither idea nor Spirit? Not, replies Philonous, if we are to keep to the rule of having meaning in the words we use. We know what is meant by a spirit, for each of us has immediate experience of one; and we know what is meant by sense-ideas and

sensible things, for we have immediate and mediate experience of them. But we have no immediate, and therefore can have no mediate, experience of what is neither perceived by our senses, nor realised in inward consciousness: moreover, 'entia non sunt multiplicanda præter necessitatem.'

Again, this conception of the realities implies, it is said, imperfection, because sentient experience, in God. This objection, it is answered, implies a confusion between being actually sentient and merely conceiving sensations, and employing them, as God does, as signs for expressing His conceptions to our minds.

Further, the negation of independent powerful Matter seems to annihilate the explanations of physical phenomena given by natural philosophers. But, to be assured that it does not, we have only to recollect what physical explanation means—that it is the reference of an apparently irregular phenomenon to some acknowledged general rule of co-existence or succession among sense-ideas. It is interpretation of sense-signs.

Is the proposed ideal Realism summarily condemned as a novelty? It can be answered, that all discoveries are novelties at first; and moreover that this one is not so much a novelty as a deeper interpretation of the common faith.

Yet it seems, at any rate, it is said, to change real things into mere ideas. Here consider on the contrary what we mean when we speak of sensible things as real. The changing appearances of which we are percipient in sense, united objectively in their cosmical order, are what is truly meant by the realities of sense.

But this reality is inconsistent with the *continued identity* of material things, it is complained, and also with the fact that different persons can be percipient of the *same* thing. Not so, Berkeley explains, when we attend to the true meaning of the word *same*, and dismiss from

our thoughts a supposed abstract idea of identity which is nonsensical.

But some may exclaim against the supposition that the material world exists in mind, regarding this as an implied assertion that mind is extended, and therefore material. This proceeds, it is replied, on forgetfulness of what 'existence in mind' means. It is intended to express the fact that matter is real in being an objective appearance of which a living mind is sensible.

Lastly, is not the Mosaic account of the creation of Matter inconsistent with the perpetual dependence of Matter for its reality upon percipient Spirit? It is answered that the conception of creation being dependent on the existence of finite minds is in perfect harmony with the Mosaic account: it is what is seen and felt, not what is unseen and unfelt, that is created.

The *Third Dialogue* closes with a representation of the new principle regarding Matter being the harmony of two apparently discordant propositions—the one-sided proposition of ordinary common sense; and the one-sided proposition of the philosophers. It agrees with the mass of mankind in holding that the material world is actually presented to our senses, and with the philosophers in holding that this same material world is realised only in and through the percipient experience of living Spirit.

Most of the objections to Berkeley's conception of Matter which have been urged in the last century and a half, by its British, French, and German critics, are discussed by anticipation in these *Dialogues*. The history of objections is very much a history of misconceptions. Conceived or misconceived, it has tacitly simplified and

purified the methods of physical science, especially in Britain and France.

The first elaborate criticism of Berkeley by a British author is found in Andrew Baxter's *Inquiry into the Nature of the Human Soul*, published in 1735, in the section entitled 'Dean Berkeley's Scheme against the existence of Matter examined, and shewn to be inconclusive.' Baxter alleges that the new doctrine tends to encourage scepticism. To deny Matter, for the reasons given, involves, according to this critic, denial of mind, and so a universal doubt. Accordingly, a few years later, Hume sought, in his *Treatise of Human Nature*, to work out Berkeley's negation of abstract Matter into sceptical phenomenalism—against which Berkeley sought to guard by anticipation, in a remarkable passage introduced in his last edition of these *Dialogues*.

In Scotland the writings of Reid, Beattie, Oswald, Dugald Stewart, Thomas Brown, and Sir W. Hamilton form a magazine of objections. Reid—who curiously seeks to refute Berkeley by refuting, not more clearly than Berkeley had done before him, the hypothesis of a wholly representative sense-perception—urges the spontaneous belief or common sense of mankind, which obliges us all to recognise a direct presentation of the external material world to our senses. He overlooks what with Berkeley is the only question in debate, namely, the meaning of the term *external*; for, Reid and Berkeley are agreed in holding to the reality of a world regulated independently of the will of finite percipients, and is sufficiently objective to be a medium of social intercourse. With Berkeley, as with Reid, *this* is practically self-evident. The same objection, more scientifically defined—that we have a natural belief in the existence of Matter, and in our own immediate perception of its qualities—is Sir W. Hamilton's assumption against Berkeley; but Hamilton does not explain the reality thus

claimed for it. 'Men naturally believe,' he says, 'that *they themselves* exist—because they are conscious of a Self or Ego; they believe that *something different from themselves* exists—because they believe that they are conscious of this Not-self or Non-ego.' (*Discussions*, p. 193.) Now, the existence of a Power that is independent of each finite Ego is at the root of Berkeley's principles. According to Berkeley and Hamilton alike, we are immediately percipient of solid and extended phenomena; but with Berkeley the phenomena are dependent on, at the same time that they are 'entirely distinct' from, the percipient. The Divine and finite spirits, signified by the phenomena that are presented to our senses in cosmical order, form Berkeley's external world.

That Berkeley sows the seeds of Universal Scepticism; that his conception of Matter involves the Pan-egoism or Solipsism which leaves me in absolute solitude; that his is virtually a system of Pantheism, inconsistent with personal individuality and moral responsibility—these are probably the three most comprehensive objections that have been alleged against it. They are in a measure due to Berkeley's imperfect criticism of first principles, in his dread of a departure from the concrete data of experience in quest of empty abstractions.

In England and France, Berkeley's criticism of Matter, taken however only on its negative side, received a countenance denied to it in Germany. Hartley and Priestley shew signs of affinity with Berkeley. Also an anonymous *Essay on the Nature and Existence of the Material World*, dedicated to Dr. Priestley and Dr. Price, which appeared in 1781, is an argument, on empirical grounds, which virtually makes the data of the senses at last a chaos of isolated sensations. The author of the *Essay* is said to have been a certain

— Russell, who died in the West Indies in the end of the eighteenth century. A tendency towards Berkeley's negations, but apart from his synthetic principles, appears in James Mill and J. S. Mill. So too with Voltaire and the Encyclopedists.

The *Dialogues between Hylas and Philonous* were published in London in 1713, 'printed by G. James, for Henry Clements, at the Half-Moon, in St. Paul's churchyard,' unlike the *Essay on Vision* and the *Principles*, which first appeared in Dublin. The second edition, which is simply a reprint, issued in 1725, 'printed for William and John Innys, at the West End of St. Paul's.' A third, the last in the author's lifetime, 'printed by Jacob Tonson,' which contains some important additions, was published in 1734, conjointly with a new edition of the *Principles*. The *Dialogues* were reprinted in 1776, in the same volume with the edition of the *Principles, with Remarks*.

The *Dialogues* have been translated into French and German. The French version appeared at Amsterdam in 1750. The translator's name is not given, but it is attributed to the Abbé Jean Paul de Gua de Malves[1], by Barbier, in his *Dictionnaire des Ouvrages anonymes et pseudonymes*, tom. i. p. 283. It contains a Prefatory Note by the translator, with three curious vignettes (given in the note below) meant to symbolise the leading thought in each Dialogue[2]. A German trans-

[1] For some information relative to Gua de Malves, see Querard's *La France Littéraire*, tom. iii. p. 494.

[2] The following is the translator's Prefatory Note, on the objects of the *Dialogues*, and in explanation of the three illustrative vignettes :—

'L'Auteur expose dans le premier Dialogue le sentiment du Vulgaire et celui des Philosophes, sur les qualités secondaires et premières, la nature et l'existence des corps ; et il prétend prouver en même tems l'insuffisance de l'un et de l'autre. La Vignette qu'on voit à la tête du Dialogue, fait allusion à cet objet. Elle représente un Philosophe dans son cabinet, lequel est distrait de son travail par un enfant qu'il apperçoit se voyant lui-même dans

lation, by John Christopher Eschenbach, Professor of Philosophy in Rostock, was published at Rostock in 1756. It forms the larger part of a volume entitled *Sammlung der vornehmsten Schriftsteller die die Wirklichkeit ihres eignen Körpers und der ganzen Körperwelt läugnen.* This professed Collection of the most eminent authors

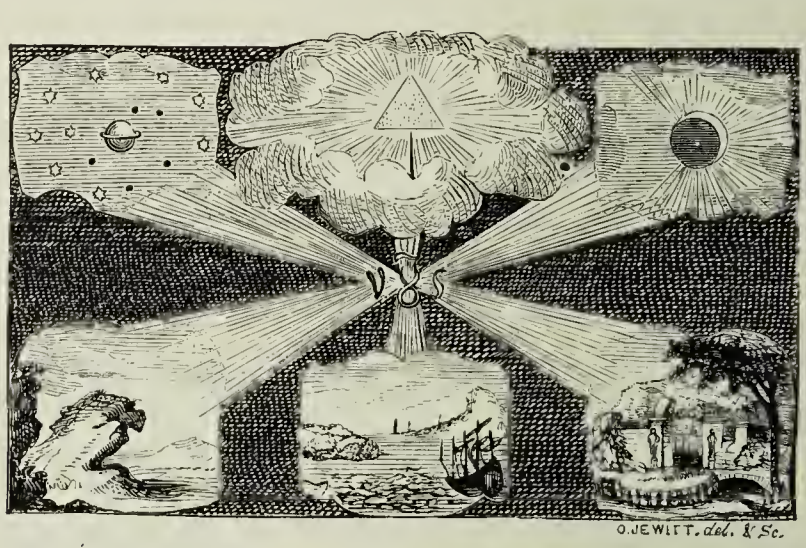
un miroir, en tendant les mains pour embrasser sa propre image. Le Philosophe rit de l'erreur où il croit que tombe l'enfant ; tandis qu'on lui applique à lui-même ces mots tirés d'Horace :

Quid rides ? . . . . . de te
Fabula narratur.

' Le second Dialogue est employé à exposer le sentiment de l'Auteur sur le même sujet, sçavoir, que les choses corporelles ont une existence réelle dans les esprits qui les apperçoivent ; mais qu'elles ne sçauroient exister hors de tous les esprits à la fois, même de l'esprit infini de Dieu ; et que par conséquent la Matière, prise suivant l'acception ordinaire du mot, non seulement n'existe point, mais seroit même absolument impossible. On a tâché de représenter aux yeux ce sentiment dans la Vignette du Dialogue. Le mot grec *νοῦς* qui signifie *âme*, désigne l'âme : les rayons qui en partent marquent l'attention que l'âme donne à des idées ou objets ; les tableaux qu'on a placés aux seuls endroits où les rayons aboutissent, et dont les sujets sont tirés de la description des beautés de la nature, qui se trouve dans le livre, représentent les idées ou objets que l'âme considère, pas le secours des facultés qu'elle a reçues de Dieu ; et l'action de l'Etre suprême sur l'âme est figurée par un trait, qui, partant d'un triangle, symbole de la Divinité, et perçant les nuages dont le triangle est environné, s'étend jusqu'à l'âme pour la vivifier ; enfin, on a fait en sorte de rendre le même sentiment par ces mots :

Quæ noscere cumque Deus det,
Esse puta.

who are supposed to deny the reality of their own bodies and of the whole material world, consists of Berkeley's *Dialogues*, and Arthur Collier's *Clavis Universalis*, or *Demonstration of the Non-existence or Impossibility of an*



'L'objet du troisième Dialogue est de répondre aux difficultés auxquelles le sentiment qu'on a établi dans les Dialogues précédens, peut être sujet, de l'éclaircir en cette sorte de plus, d'en développer toutes les heureuses conséquences, enfin de faire voir, qu'étant bien entendu, il revient aux notions les plus communes. Et comme l'Auteur exprime à la fin du livre cette dernière pensée, en comparant ce qu'il vient de dire, à l'eau que les deux Interlocuteurs sont supposés voir jaillir d'un jet, et qu'il remarque que la même force de la gravité fait élever jusqu'à une certaine hauteur et retomber ensuite dans le bassin d'où elle étoit d'abord partie; on a pris cet emblême pour le sujet de la Vignette de ce Dialogue; on a représenté en conséquence dans cette dernière Vignette les deux Interlocuteurs, se promenant dans le lieu où l'Auteur les suppose, et s'entretenant là-dessus, et pour donner au Lecteur l'explication de l'emblême, on a mis au bas le vers suivant :

Urget aquas vis sursum, eadem flectitque deorsum.'

External World. The volume contains some annotations, and an Appendix in which a counter-demonstration of the existence of Matter is attempted. Eschenbach's principal argument is indirect, and of the nature of a *reductio ad absurdum.* He argues (as others have done) that the reasons produced against the independent reality of Matter are equally conclusive against the independent reality of Spirit.

An interesting circumstance connected with the *Dialogues between Hylas and Philonous* was the appearance, also in 1713, of the *Clavis Universalis*, or demonstration of the impossibility of Matter, of Arthur Collier, in which the merely ideal existence of the sensible world is maintained. The production, simultaneously, without concert, of conceptions of the material world which verbally at least have much in common, is a curious coincidence. It shews that the intellectual atmosphere of the Lockian epoch in England contained elements favourable to a reconsideration of the ultimate meaning of Matter. They are both the genuine produce of the age of Locke and Malebranche. Neither Berkeley nor Collier were, when they published their books, familiar with ancient Greek speculations; those of modern Germany had only begun to loom in the distance. Absolute Idealism, the Panphenomenalism of Auguste Comte, and the modern evolutionary conception of nature, have changed the conditions under which the universal problem is studied, and are making intelligible to this generation a manner of conceiving the Universe which, for nearly a century and a half, the British and French critics of Berkeley were unable to entertain.

Berkeley's *Principles* appeared three years before the *Clavis Universalis.* Yet Collier tells us that it was 'after a ten years' pause and deliberation,' that, 'rather than the world should finish its course without once offering to inquire in what manner it exists,' he had 'resolved

to put himself upon the trial of the common reader, without pretending to any better art of gaining him than dry reason and metaphysical demonstration.' Mr. Benson, his biographer, says that it was in 1703, at the age of twenty-three, that Collier came to the conclusion that 'there is no such thing as an external world'; and he attributes the premises from which Collier drew this conclusion to his neighbour, John Norris. Among Collier's MSS., there remains the outline of an essay, in three chapters, dated January, 1708, on the non-externality of the *visible* world.

There are several coincidences between Berkeley and Collier. Berkeley virtually presented his new theory of Vision as the first instalment of his explanation of the Reality of Matter. The first of the two Parts into which Collier's *Clavis* is divided consists of proofs that the Visible World is not, and cannot be, external. Berkeley, in the *Principles* and the *Dialogues*, explains the reality of Matter. In like manner the Second Part of the *Clavis* consists of reasonings in proof of the impossibility of an external world independent of Spirit. Finally, in his full-blown theory, as well as in its visual germ, Berkeley takes for granted, as intuitively known, the existence of sensible Matter; meaning by this, its relative existence, or dependence on living Mind. The third proposition of Collier's system asserts the real existence of visible matter in particular, and of sensible matter in general.

The invisibility of distances, as well as of real magnitudes and situations, and their suggestion by interpretation of visual symbols, propositions which occupy so large a space in Berkeley's Theory of Vision, have no counterpart in Collier. His proof of the non-externality of the visible world consists of an induction of instances of visible objects that are allowed by all not to be external, although they seem to be as much so as any that are called external. His Demonstration consists of nine proofs,

which may be compared with the reasonings and analyses of Berkeley. Collier's Demonstration concludes with answers to objections, and an application of his account of the material world to the refutation of the Roman doctrine of the substantial existence of Christ's body in the Eucharist.

The universal sense-symbolism of Berkeley, and his pervading recognition of the distinction between physical or symbolical, and efficient or originative causation, are wanting in the narrow reasonings of Collier. Berkeley's more comprehensive philosophy, with its human sympathies and beauty of style, is now recognised as a striking expression and partial solution of fundamental problems, while Collier is condemned to the obscurity of the Schools [1].

[1] Collier never came fairly in sight of the philosophical public of last century. He is referred to in Germany by Bilfinger, in his *Dilucidationes Philosophicæ* (1746), and also in the *Acta Eruditorum*, Suppl. VI. 244, &c., and in England by Corry in his *Reflections on Liberty and Necessity* (1761), as well as in the *Remarks* on the Reflections, and *Answers* to the Remarks, pp. 7, 8 (1763), where he is described as 'a weak reasoner, and a very dull writer also.' Collier was dragged from his obscurity by Dr. Reid, in his *Essays on the Intellectual Powers*, Essay II. ch. 10. He was a subject of correspondence between Sir James Mackintosh, then at Bombay, and Dr. Parr, and an object of curiosity to Dugald Stewart. A beautiful reprint of the *Clavis* (of the original edition of which only seven copies were then known to exist) appeared in Edinburgh in 1836; and in the following year it was included in a collection of *Metaphysical Tracts by English Philosophers of the Eighteenth Century*, prepared for the press by Dr. Parr.

TO THE RIGHT HONOURABLE

THE

LORD BERKELEY OF STRATTON[1],

MASTER OF THE ROLLS IN THE KINGDOM OF IRELAND,
CHANCELLOR OF THE DUCHY OF LANCASTER, AND
ONE OF THE LORDS OF HER MAJESTY'S MOST
HONOURABLE PRIVY COUNCIL.

My Lord,

The virtue, learning, and good sense which are acknowledged to distinguish your character, would tempt me to indulge myself the pleasure men naturally take in giving applause to those whom they esteem and honour: and it should seem of importance to the subjects of Great Britain that they knew the eminent share you enjoy in the favour of your sovereign, and the honours she has conferred upon you, have not been owing to any application from your lordship, but entirely to her majesty's own thought, arising from a sense of your personal merit,

[1] William, fourth Lord Berkeley of Stratton, born about 1663, succeeded his brother in 1697, and died in 1741 at Bruton in Somersetshire. The Berkeleys of Stratton were descended from a younger son of Maurice, Lord Berkeley of Berkeley Castle, who died in 1326. His descendant, Sir John Berkeley of Bruton, a zealous Royalist, was created first Lord Berkeley of Stratton in 1658, and in 1669 became Lord Lieutenant of Ireland, an office which he held till 1672, when he was succeeded by the Earl of Essex (see Burke's *Extinct Peerages*). It is said that Bishop Berkeley's father was related to him. The Bishop himself was introduced by Dean Swift, in 1713, to the Lord Berkeley of Stratton, to whom the *Dialogues* are dedicated, as 'a cousin of his Lordship.' The title of Berkeley of Stratton became extinct on the death of the fifth Lord in 1773.

and an inclination to reward it. But, as your name is prefixed to this treatise with an intention to do honour to myself alone, I shall only say that I am encouraged by the favour you have treated me with to address these papers to your lordship. And I was the more ambitious of doing this, because a Philosophical Treatise could not so properly be addressed to any one as to a person of your lordship's character, who, to your other valuable distinctions, have added the knowledge and relish of Philosophy.

I am, with the greatest respect,

My Lord,

Your lordship's most obedient and

most humble servant,

GEORGE BERKELEY.

THE PREFACE[1]

Though it seems the general opinion of the world, no less than the design of nature and providence, that the end of speculation be Practice, or the improvement and regulation of our lives and actions; yet those who are most addicted to speculative studies, seem as generally of another mind. And indeed if we consider the pains that have been taken to perplex the plainest things, that distrust of the senses, those doubts and scruples, those abstractions and refinements that occur in the very entrance of the sciences; it will not seem strange that men of leisure and curiosity should lay themselves out in fruitless disquisitions, without descending to the practical parts of life, or informing themselves in the more necessary and important parts of knowledge.

Upon the common principles of philosophers, we are not assured of the existence of things from their being perceived. And we are taught to distinguish their *real* nature from that which falls under our senses. Hence arise scepticism and paradoxes. It is not enough that we see and feel, that we taste and smell a thing: its true nature, its absolute external entity, is still concealed. For, though it be the fiction of our own brain, we have made it inaccessible to all our faculties. Sense is fallacious, reason defective. We spend our lives in doubting of those things which other men evidently know, and believing those things which they laugh at and despise.

In order, therefore, to divert the busy mind of man from vain researches, it seemed necessary to inquire into the source of its perplexities; and, if possible, to

[1] This interesting Preface is omitted in his last edition of the *Dialogues*.

lay down such Principles as, by an easy solution of them, together with their own native evidence, may at once recommend themselves for genuine to the mind, and rescue it from those endless pursuits it is engaged in. Which, with a plain demonstration of the Immediate Providence of an all-seeing God, and the natural Immortality of the soul, should seem the readiest preparation, as well as the strongest motive, to the study and practice of virtue.

This design I proposed in the First Part of a treatise concerning the *Principles of Human Knowledge*, published in the year 1710. But, before I proceed to publish the Second Part[1], I thought it requisite to treat more clearly and fully of certain Principles laid down in the First, and to place them in a new light. Which is the business of the following *Dialogues*.

In this Treatise, which does not presuppose in the reader any knowledge of what was contained in the former, it has been my aim to introduce the notions I advance into the mind in the most easy and familiar manner; especially because they carry with them a great opposition to the prejudices of philosophers, which have so far prevailed against the common sense and natural notions of mankind.

If the Principles which I here endeavour to propagate are admitted for true, the consequences which, I think, evidently flow from thence are, that Atheism and Scepticism will be utterly destroyed, many intricate points made plain, great difficulties solved, several useless parts of science retrenched, speculation referred to practice, and men reduced from paradoxes to common sense.

And although it may, perhaps, seem an uneasy reflexion to some, that when they have taken a circuit through so many refined and unvulgar notions, they should at last come to think like other men; yet, methinks, this return to the simple dictates of nature, after having wandered through the wild mazes of philosophy, is not unpleasant. It is like coming home from a long voyage: a man reflects with pleasure on the many difficulties

[1] The Second Part of the *Principles* was never published, and only in part written. See Editor's Preface to the *Principles*.

and perplexities he has passed through, sets his heart at ease, and enjoys himself with more satisfaction for the future.

As it was my intention to convince Sceptics and Infidels by reason, so it has been my endeavour strictly to observe the most rigid laws of reasoning. And, to an impartial reader, I hope it will be manifest that the sublime notion of a God, and the comfortable expectation of Immortality, do naturally arise from a close and methodical application of thought: whatever may be the result of that loose, rambling way, not altogether improperly termed Free-thinking by certain libertines in thought, who can no more endure the restraints of logic than those of religion or government.

It will perhaps be objected to my design that, so far as it tends to ease the mind of difficult and useless inquiries, it can affect only a few speculative persons. But if, by their speculations rightly placed, the study of morality and the law of nature were brought more into fashion among men of parts and genius, the discouragements that draw to Scepticism removed, the measures of right and wrong accurately defined, and the principles of Natural Religion reduced into regular systems, as artfully disposed and clearly connected as those of some other sciences; there are grounds to think these effects would not only have a gradual influence in repairing the too much defaced sense of virtue in the world, but also, by shewing that such parts of revelation as lie within the reach of human inquiry are most agreeable to right reason, would dispose all prudent, unprejudiced persons to a modest and wary treatment of those sacred mysteries which are above the comprehension of our faculties.

It remains that I desire the reader to withhold his censure of these *Dialogues* till he has read them through. Otherwise, he may lay them aside in a mistake of their design, or on account of difficulties or objections which he would find answered in the sequel. A Treatise of this nature would require to be once read over coherently, in order to comprehend its design, the proofs, solution of difficulties, and the connexion and disposition of its parts. If it be thought to deserve a second reading, this, I imagine, will make the entire scheme very plain.

Especially if recourse be had to an Essay I wrote some years since upon *Vision*, and the Treatise concerning the *Principles of Human Knowledge*; wherein divers notions advanced in these *Dialogues* are farther pursued, or placed in different lights, and other points handled which naturally tend to confirm and illustrate them.

THREE DIALOGUES

BETWEEN

HYLAS AND PHILONOUS, IN OPPOSITION TO SCEPTICS AND ATHEISTS

THE FIRST DIALOGUE

Philonous. Good morrow, Hylas: I did not expect to find you abroad so early.

Hylas. It is indeed something unusual; but my thoughts were so taken up with a subject I was discoursing of last night, that finding I could not sleep, I resolved to rise and take a turn in the garden.

Phil. It happened well, to let you see what innocent and agreeable pleasures you lose every morning. Can there be a pleasanter time of the day, or a more delightful season of the year? That purple sky, those wild but sweet notes of birds, the fragrant bloom upon the trees and flowers, the gentle influence of the rising sun, these and a thousand nameless beauties of nature inspire the soul with secret transports; its faculties too being at this time fresh and lively, are fit for those meditations, which the solitude of a garden and tranquillity of the morning naturally dispose us to. But I am afraid I interrupt your thoughts: for you seemed very intent on something.

Hyl. It is true, I was, and shall be obliged to you if you will permit me to go on in the same vein; not that I would by any means deprive myself of your company, for my thoughts always flow more easily in conversation

with a friend, than when I am alone: but my request is, that you would suffer me to impart my reflexions to you.

Phil. With all my heart, it is what I should have requested myself if you had not prevented me.

Hyl. I was considering the odd fate of those men who have in all ages, through an affectation of being distinguished from the vulgar, or some unaccountable turn of thought, pretended either to believe nothing at all, or to believe the most extravagant things in the world. This however might be borne, if their paradoxes and scepticism did not draw after them some consequences of general disadvantage to mankind. But the mischief lieth here; that when men of less leisure see them who are supposed to have spent their whole time in the pursuits of knowledge professing an entire ignorance of all things, or advancing such notions as are repugnant to plain and commonly received principles, they will be tempted to entertain suspicions concerning the most important truths, which they had hitherto held sacred and unquestionable[1].

Phil. I entirely agree with you, as to the ill tendency of the affected doubts of some philosophers, and fantastical conceits of others. I am even so far gone of late in this way of thinking, that I have quitted several of the sublime notions I had got in their schools for vulgar opinions. And I give it you on my word; since this revolt from metaphysical notions to the plain dictates of nature and common sense[2], I find my understanding strangely enlightened, so that I can now easily comprehend a great many things which before were all mystery and riddle.

Hyl. I am glad to find there was nothing in the accounts I heard of you.

Phil. Pray, what were those?

Hyl. You were represented, in last night's conversation, as one who maintained the most extravagant opinion that ever entered into the mind of man, to wit, that there is no such thing as *material substance* in the world.

[1] *Principles*, Introduction, sect. 1.

[2] Berkeley's philosophy is professedly a 'revolt' from abstract ideas to an enlightened sense of concrete realities. In these Dialogues *Philonous* personates the revolt, and represents Berkeley. *Hylas* vindicates the uncritical conception of independent Matter.

Phil. That there is no such thing as what *philosophers* call *material substance,* I am seriously persuaded: but, if I were made to see anything absurd or sceptical in this, I should then have the same reason to renounce this that I imagine I have now to reject the contrary opinion.

Hyl. What! can anything be more fantastical, more repugnant to Common Sense, or a more manifest piece of Scepticism, than to believe there is no such thing as *matter*?

Phil. Softly, good Hylas. What if it should prove that you, who hold there is, are, by virtue of that opinion, a greater sceptic, and maintain more paradoxes and repugnances to Common Sense, than I who believe no such thing?

Hyl. You may as soon persuade me, the part is greater than the whole, as that, in order to avoid absurdity and Scepticism, I should ever be obliged to give up my opinion in this point.

Phil. Well then, are you content to admit that opinion for true, which upon examination shall appear most agreeable to Common Sense, and remote from Scepticism?

Hyl. With all my heart. Since you are for raising disputes about the plainest things in nature, I am content for once to hear what you have to say.

Phil. Pray, Hylas, what do you mean by a *sceptic*?

Hyl. I mean what all men mean—one that doubts of everything.

Phil. He then who entertains no doubt concerning some particular point, with regard to that point cannot be thought a sceptic.

Hyl. I agree with you.

Phil. Whether doth doubting consist in embracing the affirmative or negative side of a question?

Hyl. In neither; for whoever understands English cannot but know that *doubting* signifies a suspense between both.

Phil. He then that denies any point, can no more be said to doubt of it, than he who affirmeth it with the same degree of assurance.

Hyl. True.

Phil. And, consequently, for such his denial is no more to be esteemed a sceptic than the other.

Hyl. I acknowledge it.

Phil. How cometh it to pass then, Hylas, that you pronounce me a *sceptic*, because I deny what you affirm, to wit, the existence of Matter? Since, for aught you can tell, I am as peremptory in my denial, as you in your affirmation.

Hyl. Hold, Philonous, I have been a little out in my definition; but every false step a man makes in discourse is not to be insisted on. I said indeed that a *sceptic* was one who doubted of everything; but I should have added, or who denies the reality and truth of things.

Phil. What things? Do you mean the principles and theorems of sciences? But these you know are universal intellectual notions, and consequently independent of Matter. The denial therefore of this doth not imply the denying them[1].

Hyl. I grant it. But are there no other things? What think you of distrusting the senses, of denying the real existence of sensible things, or pretending to know nothing of them. Is not this sufficient to denominate a man a *sceptic*?

Phil. Shall we therefore examine which of us it is that denies the reality of sensible things, or professes the greatest ignorance of them; since, if I take you rightly, he is to be esteemed the greatest *sceptic*?

Hyl. That is what I desire.

Phil. What mean you by Sensible Things?

Hyl. Those things which are perceived by the senses. Can you imagine that I mean anything else?

Phil. Pardon me, Hylas, if I am desirous clearly to apprehend your notions, since this may much shorten our inquiry. Suffer me then to ask you this farther question. Are those things only perceived by the senses which are perceived immediately? Or, may those things properly be said to be *sensible* which are perceived mediately, or not without the intervention of others?

Hyl. I do not sufficiently understand you.

Phil. In reading a book, what I immediately perceive

[1] Berkeley's zeal against Matter in the abstract, and all abstract ideas of concrete things, is therefore not necessarily directed against 'universal intellectual notions'—'the principles and theorems of sciences.'

are the letters; but mediately, or by means of these, are suggested to my mind the notions of God, virtue, truth, &c. Now, that the letters are truly sensible things, or perceived by sense, there is no doubt: but I would know whether you take the things suggested by them to be so too.

Hyl. No, certainly: it were absurd to think *God* or *virtue* sensible things; though they may be signified and suggested to the mind by sensible marks, with which they have an arbitrary connexion.

Phil. It seems then, that by *sensible things* you mean those only which can be perceived *immediately* by sense?

Hyl. Right.

Phil. Doth it not follow from this, that though I see one part of the sky red, and another blue, and that my reason doth thence evidently conclude there must be some cause of that diversity of colours, yet that cause cannot be said to be a sensible thing, or perceived by the sense of seeing?

Hyl. It doth.

Phil. In like manner, though I hear variety of sounds, yet I cannot be said to hear the causes of those sounds?

Hyl. You cannot.

Phil. And when by my touch I perceive a thing to be hot and heavy, I cannot say, with any truth or propriety, that I feel the cause of its heat or weight?

Hyl. To prevent any more questions of this kind, I tell you once for all, that by *sensible things* I mean those only which are perceived by sense; and that in truth the senses perceive nothing which they do not perceive *immediately*: for they make no inferences. The deducing therefore of causes or occasions from effects and appearances, which alone are perceived by sense, entirely relates to reason[1].

Phil. This point then is agreed between us—That *sensible things are those only which are immediately perceived by sense.* You will farther inform me, whether we immediately perceive by sight anything beside light, and colours, and figures[2]; or by hearing, anything but sounds; by the palate, anything beside tastes; by the smell, beside odours; or by the touch, more than tangible qualities.

[1] Here 'reason' means reasoning or inference. Cf. *Theory of Vision Vindicated*, sect. 42, including the distinction between 'suggestion' and 'inference.'

[2] 'figure' as well as colour, is here included among the original data of sight.

Hyl. We do not.

Phil. It seems, therefore, that if you take away all sensible qualities, there remains nothing sensible?

Hyl. I grant it.

Phil. Sensible things therefore are nothing else but so many sensible qualities, or combinations of sensible qualities?

Hyl. Nothing else.

Phil. *Heat* then is a sensible thing?

Hyl. Certainly.

Phil. Doth the *reality* of sensible things consist in being perceived? or, is it something distinct from their being perceived, and that bears no relation to the mind?

Hyl. To *exist* is one thing, and to be *perceived* is another.

Phil. I speak with regard to sensible things only. And of these I ask, whether by their real existence you mean a subsistence exterior to the mind, and distinct from their being perceived?

Hyl. I mean a real absolute being, distinct from, and without any relation to, their being perceived.

Phil. Heat therefore, if it be allowed a real being, must exist without the mind[1]?

Hyl. It must.

Phil. Tell me, Hylas, is this real existence equally compatible to all degrees of heat, which we perceive; or is there any reason why we should attribute it to some, and deny it to others? And if there be, pray let me know that reason.

Hyl. Whatever degree of heat we perceive by sense, we may be sure the same exists in the object that occasions it.

Phil. What! the greatest as well as the least?

Hyl. I tell you, the reason is plainly the same in respect of both. They are both perceived by sense; nay, the greater degree of heat is more sensibly perceived; and consequently, if there is any difference, we are more certain of its real existence than we can be of the reality of a lesser degree.

Phil. But is not the most vehement and intense degree of heat a very great pain?

[1] 'without the mind,' i. e. unrealised by any percipient mind.

Hyl. No one can deny it.

Phil. And is any unperceiving thing capable of pain or pleasure?

Hyl. No, certainly.

Phil. Is your material substance a senseless being, or a being endowed with sense and perception?

Hyl. It is senseless without doubt.

Phil. It cannot therefore be the subject of pain?

Hyl. By no means.

Phil. Nor consequently of the greatest heat perceived by sense, since you acknowledge this to be no small pain?

Hyl. I grant it.

Phil. What shall we say then of your external object; is it a material Substance, or no?

Hyl. It is a material substance with the sensible qualities inhering in it.

Phil. How then can a great heat exist in it, since you own it cannot in a material substance? I desire you would clear this point.

Hyl. Hold, Philonous, I fear I was out in yielding intense heat to be a pain. It should seem rather, that pain is something distinct from heat, and the consequence or effect of it.

Phil. Upon putting your hand near the fire, do you perceive one simple uniform sensation, or two distinct sensations?

Hyl. But one simple sensation.

Phil. Is not the heat immediately perceived?

Hyl. It is.

Phil. And the pain?

Hyl. True.

Phil. Seeing therefore they are both immediately perceived at the same time, and the fire affects you only with one simple or uncompounded idea, it follows that this same simple idea is both the intense heat immediately perceived, and the pain; and, consequently, that the intense heat immediately perceived is nothing distinct from a particular sort of pain.

Hyl. It seems so.

Phil. Again, try in your thoughts, Hylas, if you can conceive a vehement sensation to be without pain or pleasure.

Hyl. I cannot.

Phil. Or can you frame to yourself an idea of sensible pain or pleasure in general, abstracted from every particular idea of heat, cold, tastes, smells? &c.

Hyl.—I do not find that I can.

Phil. Doth it not therefore follow, that sensible pain is nothing distinct from those sensations or ideas, in an intense degree?

Hyl. It is undeniable; and, to speak the truth, I begin to suspect a very great heat cannot exist but in a mind perceiving it.

Phil. What! are you then in that sceptical state of suspense, between affirming and denying?

Hyl. I think I may be positive in the point. A very violent and painful heat cannot exist without the mind.

Phil. It hath not therefore, according to you, any *real* being?

Hyl. I own it.

Phil. Is it therefore certain, that there is no body in nature really hot?

Hyl. I have not denied there is any real heat in bodies. I only say, there is no such thing as an intense real heat.

Phil. But, did you not say before that all degrees of heat were equally real; or, if there was any difference, that the greater were more undoubtedly real than the lesser?

Hyl. True: but it was because I did not then consider the ground there is for distinguishing between them, which I now plainly see. And it is this: because intense heat is nothing else but a particular kind of painful sensation; and pain cannot exist but in a perceiving being; it follows that no intense heat can really exist in an unperceiving corporeal substance. But this is no reason why we should deny heat in an inferior degree to exist in such a substance.

Phil. But how shall we be able to discern those degrees of heat which exist only in the mind from those which exist without it?

Hyl. That is no difficult matter. You know the least pain cannot exist unperceived; whatever, therefore, degree of heat is a pain exists only in the mind. But, as for all other degrees of heat, nothing obliges us to think the same of them.

Phil. I think you granted before that no unperceiving being was capable of pleasure, any more than of pain.

Hyl. I did.

Phil. And is not warmth, or a more gentle degree of heat than what causes uneasiness, a pleasure?

Hyl. What then?

Phil. Consequently, it cannot exist without the mind in an unperceiving substance, or body.

Hyl. So it seems.

Phil. Since, therefore, as well those degrees of heat that are not painful, as those that are, can exist only in a thinking substance; may we not conclude that external bodies are absolutely incapable of any degree of heat whatsoever?

Hyl. On second thoughts, I do not think it so evident that warmth is a pleasure as that a great degree of heat is a pain.

Phil. I do not pretend that warmth is as great a pleasure as heat is a pain. But, if you grant it to be even a small pleasure, it serves to make good my conclusion.

Hyl. I could rather call it an *indolence*. It seems to be nothing more than a privation of both pain and pleasure. And that such a quality or state as this may agree to an unthinking substance, I hope you will not deny.

Phil. If you are resolved to maintain that warmth, or a gentle degree of heat, is no pleasure, I know not how to convince you otherwise than by appealing to your own sense. But what think you of cold?

Hyl. The same that I do of heat. An intense degree of cold is a pain; for to feel a very great cold, is to perceive a great uneasiness: it cannot therefore exist without the mind; but a lesser degree of cold may, as well as a lesser degree of heat.

Phil. Those bodies, therefore, upon whose application to our own, we perceive a moderate degree of heat, must be concluded to have a moderate degree of heat or warmth in them; and those, upon whose application we feel a like degree of cold, must be thought to have cold in them.

Hyl. They must.

Phil. Can any doctrine be true that necessarily leads a man into an absurdity?

Hyl. Without doubt it cannot.

Phil. Is it not an absurdity to think that the same thing should be at the same time both cold and warm?

Hyl. It is.

Phil. Suppose now one of your hands hot, and the other cold, and that they are both at once put into the same vessel of water, in an intermediate state; will not the water seem cold to one hand, and warm to the other[1]?

Hyl. It will.

Phil. Ought we not therefore, by your principles, to conclude it is really both cold and warm at the same time, that is, according to your own concession, to believe an absurdity?

Hyl. I confess it seems so.

Phil. Consequently, the principles themselves are false, since you have granted that no true principle leads to an absurdity.

Hyl. But, after all, can anything be more absurd than to say, *there is no heat in the fire*?

Phil. To make the point still clearer; tell me whether, in two cases exactly alike, we ought not to make the same judgment?

Hyl. We ought.

Phil. When a pin pricks your finger, doth it not rend and divide the fibres of your flesh?

Hyl. It doth.

Phil. And when a coal burns your finger, doth it any more?

Hyl. It doth not.

Phil. Since, therefore, you neither judge the sensation itself occasioned by the pin, nor anything like it to be in the pin; you should not, conformably to what you have now granted, judge the sensation occasioned by the fire, or anything like it, to be in the fire.

Hyl. Well, since it must be so, I am content to yield this point, and acknowledge that heat and cold are only sensations existing in our minds. But there still remain qualities enough to secure the reality of external things.

Phil. But what will you say, Hylas, if it shall appear that the case is the same with regard to all other sensible

[1] Cf. *Principles*, sect. 14.

qualities[1], and that they can no more be supposed to exist without the mind, than heat and cold?

Hyl. Then indeed you will have done something to the purpose; but that is what I despair of seeing proved.

Phil. Let us examine them in order. What think you of *tastes*—do they exist without the mind, or no?

Hyl. Can any man in his senses doubt whether sugar is sweet, or wormwood bitter?

Phil. Inform me, Hylas. Is a sweet taste a particular kind of pleasure or pleasant sensation, or is it not?

Hyl. It is.

Phil. And is not bitterness some kind of uneasiness or pain?

Hyl. I grant it.

Phil. If therefore sugar and wormwood are unthinking corporeal substances existing without the mind, how can sweetness and bitterness, that is, pleasure and pain, agree to them?

Hyl. Hold, Philonous, I now see what it was deluded me all this time. You asked whether heat and cold, sweetness and bitterness, were not particular sorts of pleasure and pain; to which I answered simply, that they were. Whereas I should have thus distinguished:—those qualities, as perceived by us, are pleasures or pains; but not as existing in the external objects. We must not therefore conclude absolutely, that there is no heat in the fire, or sweetness in the sugar, but only that heat or sweetness, as perceived by us, are not in the fire or sugar. What say you to this?

Phil. I say it is nothing to the purpose. Our discourse proceeded altogether concerning sensible things, which you defined to be, *the things we immediately perceive by our senses.* Whatever other qualities, therefore, you speak of, as distinct from these, I know nothing of them, neither do they at all belong to the point in dispute. You may, indeed, pretend to have discovered certain qualities which you do not perceive, and assert those insensible qualities exist in fire and sugar. But what use can be made of this to your present purpose, I am at a loss to conceive. Tell me then once more, do you acknowledge that heat and

[1] Cf. *Principles*, sect. 14, 15.

cold, sweetness and bitterness (meaning those qualities which are perceived by the senses), do not exist without the mind?

Hyl. I see it is to no purpose to hold out, so I give up the cause as to those mentioned qualities. Though I profess it sounds oddly, to say that sugar is not sweet.

Phil. But, for your farther satisfaction, take this along with you: that which at other times seems sweet, shall, to a distempered palate, appear bitter. And, nothing can be plainer than that divers persons perceive different tastes in the same food; since that which one man delights in, another abhors. And how could this be, if the taste was something really inherent in the food?

Hyl. I acknowledge I know not how.

Phil. In the next place, *odours* are to be considered. And, with regard to these, I would fain know whether what hath been said of tastes doth not exactly agree to them? Are they not so many pleasing or displeasing sensations?

Hyl. They are.

Phil. Can you then conceive it possible that they should exist in an unperceiving thing?

Hyl. I cannot.

Phil. Or, can you imagine that filth and ordure affect those brute animals that feed on them out of choice, with the same smells which we perceive in them?

Hyl. By no means.

Phil. May we not therefore conclude of smells, as of the other forementioned qualities, that they cannot exist in any but a perceiving substance or mind?

Hyl. I think so.

Phil. Then as to *sounds*, what must we think of them: are they accidents really inherent in external bodies, or not?

Hyl. That they inhere not in the sonorous bodies is plain from hence: because a bell struck in the exhausted receiver of an air-pump sends forth no sound. The air, therefore, must be thought the subject of sound.

Phil. What reason is there for that, Hylas?

Hyl. Because, when any motion is raised in the air, we perceive a sound greater or lesser, according to the air's motion; but without some motion in the air, we never hear any sound at all.

Phil. And granting that we never hear a sound but when

some motion is produced in the air, yet I do not see how you can infer from thence, that the sound itself is in the air.

Hyl. It is this very motion in the external air that produces in the mind the sensation of *sound*. For, striking on the drum of the ear, it causeth a vibration, which by the auditory nerves being communicated to the brain, the soul is thereupon affected with the sensation called *sound*.

Phil. What! is sound then a sensation?

Hyl. I tell you, as perceived by us, it is a particular sensation in the mind.

Phil. And can any sensation exist without the mind?

Hyl. No, certainly.

Phil. How then can sound, being a sensation, exist in the air, if by the *air* you mean a senseless substance existing without the mind?

Hyl. You must distinguish, Philonous, between sound as it is perceived by us, and as it is in itself; or (which is the same thing) between the sound we immediately perceive, and that which exists without us. The former, indeed, is a particular kind of sensation, but the latter is merely a vibrative or undulatory motion in the air.

Phil. I thought I had already obviated that distinction, by the answer I gave when you were applying it in a like case before. But, to say no more of that, are you sure then that sound is really nothing but motion?

Hyl. I am.

Phil. Whatever therefore agrees to real sound, may with truth be attributed to motion?

Hyl. It may.

Phil. It is then good sense to speak of *motion* as of a thing that is *loud, sweet, acute, or grave.*

Hyl. I see you are resolved not to understand me. Is it not evident those accidents or modes belong only to sensible sound, or *sound* in the common acceptation of the word, but not to *sound* in the real and philosophic sense; which, as I just now told you, is nothing but a certain motion of the air?

Phil. It seems then there are two sorts of sound—the one vulgar, or that which is heard, the other philosophical and real?

Hyl. Even so.

Phil. And the latter consists in motion?

Hyl. I told you so before.

Phil. Tell me, Hylas, to which of the senses, think you, the idea of motion belongs? to the hearing?

Hyl. No, certainly; but to the sight and touch.

Phil. It should follow then, that, according to you, real sounds may possibly be *seen* or *felt*, but never *heard*.

Hyl. Look you, Philonous, you may, if you please, make a jest of my opinion, but that will not alter the truth of things. I own, indeed, the inferences you draw me into sound something oddly; but common language, you know, is framed by, and for the use of the vulgar: we must not therefore wonder if expressions adapted to exact philosophic notions seem uncouth and out of the way.

Phil. Is it come to that? I assure you, I imagine myself to have gained no small point, since you make so light of departing from common phrases and opinions; it being a main part of our inquiry, to examine whose notions are widest of the common road, and most repugnant to the general sense of the world. But, can you think it no more than a philosophical paradox, to say that *real sounds are never heard*, and that the idea of them is obtained by some other sense? And is there nothing in this contrary to nature and the truth of things?

Hyl. To deal ingenuously, I do not like it. And, after the concessions already made, I had as well grant that sounds too have no real being without the mind.

Phil. And I hope you will make no difficulty to acknowledge the same of *colours*.

Hyl. Pardon me: the case of colours is very different. Can anything be plainer than that we see them on the objects?

Phil. The objects you speak of are, I suppose, corporeal Substances existing without the mind?

Hyl. They are.

Phil. And have true and real colours inhering in them?

Hyl. Each visible object hath that colour which we see in it.

Phil. How! is there anything visible but what we perceive by sight?

Hyl. There is not.

Phil. And, do we perceive anything by sense which we do not perceive immediately?

Hyl. How often must I be obliged to repeat the same thing? I tell you, we do not.

Phil. Have patience, good Hylas; and tell me once more, whether there is anything immediately perceived by the senses, except sensible qualities. I know you asserted there was not; but I would now be informed, whether you still persist in the same opinion.

Hyl. I do.

Phil. Pray, is your corporeal substance either a sensible quality, or made up of sensible qualities?

Hyl. What a question that is! who ever thought it was?

Phil. My reason for asking was, because in saying, *each visible object hath that colour which we see in it*, you make visible objects to be corporeal substances; which implies either that corporeal substances are sensible qualities, or else that there is something beside sensible qualities perceived by sight: but, as this point was formerly agreed between us, and is still maintained by you, it is a clear consequence, that your *corporeal substance* is nothing distinct from *sensible qualities*[1].

Hyl. You may draw as many absurd consequences as you please, and endeavour to perplex the plainest things; but you shall never persuade me out of my senses. I clearly understand my own meaning.

Phil. I wish you would make me understand it too. But, since you are unwilling to have your notion of corporeal substance examined, I shall urge that point no farther. Only be pleased to let me know, whether the same colours which we see exist in external bodies, or some other.

Hyl. The very same.

Phil. What! are then the beautiful red and purple we see on yonder clouds really in them? Or do you imagine they have in themselves any other form than that of a dark mist or vapour?

Hyl. I must own, Philonous, those colours are not really in the clouds as they seem to be at this distance. They are only apparent colours.

Phil. *Apparent* call you them? how shall we distinguish these apparent colours from real?

[1] 'Sensible qualities,' i. e. the significant appearances presented in sense.

Hyl. Very easily. Those are to be thought apparent which, appearing only at a distance, vanish upon a nearer approach.

Phil. And those, I suppose, are to be thought real which are discovered by the most near and exact survey.

Hyl. Right.

Phil. Is the nearest and exactest survey made by the help of a microscope, or by the naked eye?

Hyl. By a microscope, doubtless.

Phil. But a microscope often discovers colours in an object different from those perceived by the unassisted sight. And, in case we had microscopes magnifying to any assigned degree, it is certain that no object whatsoever, viewed through them, would appear in the same colour which it exhibits to the naked eye.

Hyl. And what will you conclude from all this? You cannot argue that there are really and naturally no colours on objects: because by artificial managements they may be altered, or made to vanish.

Phil. I think it may evidently be concluded from your own concessions, that all the colours we see with our naked eyes are only apparent as those on the clouds, since they vanish upon a more close and accurate inspection which is afforded us by a microscope. Then, as to what you say by way of prevention: I ask you whether the real and natural state of an object is better discovered by a very sharp and piercing sight, or by one which is less sharp?

Hyl. By the former without doubt.

Phil. Is it not plain from *Dioptrics* that microscopes make the sight more penetrating, and represent objects as they would appear to the eye in case it were naturally endowed with a most exquisite sharpness?

Hyl. It is.

Phil. Consequently the microscopical representation is to be thought that which best sets forth the real nature of the thing, or what it is in itself. The colours, therefore, by it perceived are more genuine and real than those perceived otherwise.

Hyl. I confess there is something in what you say.

Phil. Besides, it is not only possible but manifest, that there actually are animals whose eyes are by nature framed

to perceive those things which by reason of their minuteness escape our sight. What think you of those inconceivably small animals perceived by glasses? must we suppose they are all stark blind? Or, in case they see, can it be imagined their sight hath not the same use in preserving their bodies from injuries, which appears in that of all other animals? And if it hath, is it not evident they must see particles less than their own bodies; which will present them with a far different view in each object from that which strikes our senses[1]? Even our own eyes do not always represent objects to us after the same manner. In the jaundice every one knows that all things seem yellow. Is it not therefore highly probable those animals in whose eyes we discern a very different texture from that of ours, and whose bodies abound with different humours, do not see the same colours in every object that we do? From all which, should it not seem to follow that all colours are equally apparent, and that none of those which we perceive are really inherent in any outward object?

Hyl. It should.

Phil. The point will be past all doubt, if you consider that, in case colours were real properties or affections inherent in external bodies, they could admit of no alteration without some change wrought in the very bodies themselves: but, is it not evident from what hath been said that, upon the use of microscopes, upon a change happening in the humours of the eye, or a variation of distance, without any manner of real alteration in the thing itself, the colours of any object are either changed, or totally disappear? Nay, all other circumstances remaining the same, change but the situation of some objects, and they shall present different colours to the eye. The same thing happens upon viewing an object in various degrees of light. And what is more known than that the same bodies appear differently coloured by candle-light from what they do in the open day? Add to these the experiment of a prism which, separating the heterogeneous rays of light, alters the colour of any object, and will cause the whitest to appear of a deep blue or red to the naked eye. And now tell me whether you are still of opinion

[1] Cf. *New Theory of Vision*, sect. 80-86.

that every body hath its true real colour inhering in it; and, if you think it hath, I would fain know farther from you, what certain distance and position of the object, what peculiar texture and formation of the eye, what degree or kind of light is necessary for ascertaining that true colour, and distinguishing it from apparent ones.

Hyl. I own myself entirely satisfied, that they are all equally apparent, and that there is no such thing as colour really inhering in external bodies, but that it is altogether in the light. And what confirms me in this opinion is, that in proportion to the light colours are still more or less vivid; and if there be no light, then are there no colours perceived. Besides, allowing there are colours on external objects, yet, how is it possible for us to perceive them? For no external body affects the mind, unless it acts first on our organs of sense. But the only action of bodies is motion; and motion cannot be communicated otherwise than by impulse. A distant object therefore cannot act on the eye; nor consequently make itself or its properties perceivable to the soul. Whence it plainly follows that it is immediately some contiguous substance, which, operating on the eye, occasions a perception of colours: and such is light.

Phil. How! is light then a substance?

Hyl. I tell you, Philonous, external light is nothing but a thin fluid substance, whose minute particles being agitated with a brisk motion, and in various manners reflected from the different surfaces of outward objects to the eyes, communicate different motions to the optic nerves; which, being propagated to the brain, cause therein various impressions; and these are attended with the sensations of red, blue, yellow, &c.

Phil. It seems then the light doth no more than shake the optic nerves.

Hyl. Nothing else.

Phil. And consequent to each particular motion of the nerves, the mind is affected with a sensation, which is some particular colour.

Hyl. Right.

Phil. And these sensations have no existence without the mind.

Hyl. They have not.

Phil. How then do you affirm that colours are in the light; since by *light* you understand a corporeal substance external to the mind?

Hyl. Light and colours, as immediately perceived by us, I grant cannot exist without the mind. But in themselves they are only the motions and configurations of certain insensible particles of matter.

Phil. Colours then, in the vulgar sense, or taken for the immediate objects of sight, cannot agree to any but a perceiving substance.

Hyl. That is what I say.

Phil. Well then, since you give up the point as to those sensible qualities which are alone thought colours by all mankind beside, you may hold what you please with regard to those invisible ones of the philosophers. It is not my business to dispute about *them*; only I would advise you to bethink yourself, whether, considering the inquiry we are upon, it be prudent for you to affirm—*the red and blue which we see are not real colours, but certain unknown motions and figures which no man ever did or can see are truly so.* Are not these shocking notions, and are not they subject to as many ridiculous inferences, as those you were obliged to renounce before in the case of sounds?

Hyl. I frankly own, Philonous, that it is in vain to stand out any longer. Colours, sounds, tastes, in a word all those termed *secondary qualities*, have certainly no existence without the mind. But by this acknowledgment I must not be supposed to derogate anything from the reality of Matter, or external objects; seeing it is no more than several philosophers maintain[1], who nevertheless are the farthest imaginable from denying Matter. For the clearer understanding of this, you must know sensible qualities are by philosophers divided into *Primary* and *Secondary*[2]. The former are Extension, Figure, Solidity, Gravity, Motion, and Rest; and these they hold exist really in bodies. The latter are those above enumerated; or,

[1] Descartes and Locke for example.

[2] On Primary and Secondary Qualities of Matter, and their mutual relations, cf. *Principles*, sect. 9–15. See also Descartes, *Meditations*, III, *Principia*, I. sect. 69; Malebranche, *Recherche*, Liv. VI. Pt. II. sect. 2; Locke's *Essay*, Bk. II. ch. 8.

briefly, *all sensible qualities beside the Primary*; which they assert are only so many sensations or ideas existing nowhere but in the mind. But all this, I doubt not, you are apprised of. For my part, I have been a long time sensible there was such an opinion current among philosophers, but was never thoroughly convinced of its truth until now.

Phil. You are still then of opinion that *extension* and *figures* are inherent in external unthinking substances?

Hyl. I am.

Phil. But what if the same arguments which are brought against Secondary Qualities will hold good against these also?

Hyl. Why then I shall be obliged to think, they too exist only in the mind.

Phil. Is it your opinion the very figure and extension which you perceive by sense exist in the outward object or material substance?

Hyl. It is.

Phil. Have all other animals as good grounds to think the same of the figure and extension which they see and feel?

Hyl. Without doubt, if they have any thought at all.

Phil. Answer me, Hylas. Think you the senses were bestowed upon all animals for their preservation and well-being in life? or were they given to men alone for this end?

Hyl. I make no question but they have the same use in all other animals.

Phil. If so, is it not necessary they should be enabled by them to perceive their own limbs, and those bodies which are capable of harming them?

Hyl. Certainly.

Phil. A mite therefore must be supposed to see his own foot, and things equal or even less than it, as bodies of some considerable dimension; though at the same time they appear to you scarce discernible, or at best as so many visible points[1]?

Hyl. I cannot deny it.

[1] Cf. *New Theory of Vision*, sect. 80.

Phil. And to creatures less than the mite they will seem yet larger?

Hyl. They will.

Phil. Insomuch that what you can hardly discern will to another extremely minute animal appear as some huge mountain?

Hyl. All this I grant.

Phil. Can one and the same thing be at the same time in itself of different dimensions?

Hyl. That were absurd to imagine.

Phil. But, from what you have laid down it follows that both the extension by you perceived, and that perceived by the mite itself, as likewise all those perceived by lesser animals, are each of them the true extension of the mite's foot; that is to say, by your own principles you are led into an absurdity.

Hyl. There seems to be some difficulty in the point.

Phil. Again, have you not acknowledged that no real inherent property of any object can be changed without some change in the thing itself?

Hyl. I have.

Phil. But, as we approach to or recede from an object, the visible extension varies, being at one distance ten or a hundred times greater than at another. Doth it not therefore follow from hence likewise that it is not really inherent in the object?

Hyl. I own I am at a loss what to think.

Phil. Your judgment will soon be determined, if you will venture to think as freely concerning this quality as you have done concerning the rest. Was it not admitted as a good argument, that neither heat nor cold was in the water, because it seemed warm to one hand and cold to the other?

Hyl. It was.

Phil. Is it not the very same reasoning to conclude, there is no extension or figure in an object, because to one eye it shall seem little, smooth, and round, when at the same time it appears to the other, great, uneven, and angular?

Hyl. The very same. But does this latter fact ever happen?

Phil. You may at any time make the experiment, by

looking with one eye bare, and with the other through a microscope.

Hyl. I know not how to maintain it; and yet I am loath to give up *extension*, I see so many odd consequences following upon such a concession.

Phil. Odd, say you? After the concessions already made, I hope you will stick at nothing for its oddness. [[1] But, on the other hand, should it not seem very odd, if the general reasoning which includes all other sensible qualities did not also include extension? If it be allowed that no idea, nor anything like an idea, can exist in an unperceiving substance, then surely it follows that no figure, or mode of extension, which we can either perceive, or imagine, or have any idea of, can be really inherent in Matter; not to mention the peculiar difficulty there must be in conceiving a material substance, prior to and distinct from extension, to be the *substratum* of extension. Be the sensible quality what it will—figure, or sound, or colour, it seems alike impossible it should subsist in that which doth not perceive it.]

Hyl. I give up the point for the present, reserving still a right to retract my opinion, in case I shall hereafter discover any false step in my progress to it.

Phil. That is a right you cannot be denied. Figures and extension being despatched, we proceed next to *motion*. Can a real motion in any external body be at the same time both very swift and very slow?

Hyl. It cannot.

Phil. Is not the motion of a body swift in a reciprocal proportion to the time it takes up in describing any given space? Thus a body that describes a mile in an hour moves three times faster than it would in case it described only a mile in three hours.

Hyl. I agree with you.

Phil. And is not time measured by the succession of ideas in our minds?

Hyl. It is.

Phil. And is it not possible ideas should succeed one another twice as fast in your mind as they do in mine, or in that of some spirit of another kind?

[1] What follows, within brackets, is not contained in the first and second editions.

Hyl. I own it.

Phil. Consequently the same body may to another seem to perform its motion over any space in half the time that it doth to you. And the same reasoning will hold as to any other proportion: that is to say, according to your principles (since the motions perceived are both really in the object) it is possible one and the same body shall be really moved the same way at once, both very swift and very slow. How is this consistent either with common sense, or with what you just now granted?

Hyl. I have nothing to say to it.

Phil. Then as for *solidity*; either you do not mean any sensible quality by that word, and so it is beside our inquiry: or if you do, it must be either hardness or resistance. But both the one and the other are plainly relative to our senses: it being evident that what seems hard to one animal may appear soft to another, who hath greater force and firmness of limbs. Nor is it less plain that the resistance I feel is not in the body.

Hyl. I own the very *sensation* of resistance, which is all you immediately perceive, is not in the body; but the *cause* of that sensation is.

Phil. But the causes of our sensations are not things immediately perceived, and therefore are not sensible. This point I thought had been already determined.

Hyl. I own it was; but you will pardon me if I seem a little embarrassed: I know not how to quit my old notions.

Phil. To help you out, do but consider that if *extension* be once acknowledged to have no existence without the mind, the same must necessarily be granted of motion, solidity, and gravity; since they all evidently suppose extension. It is therefore superfluous to inquire particularly concerning each of them. In denying extension, you have denied them all to have any real existence[1].

Hyl. I wonder, Philonous, if what you say be true, why those philosophers who deny the Secondary Qualities any real existence should yet attribute it to the Primary. If there is no difference between them, how can this be accounted for?

[1] Percipient mind is, in short, the indispensable realising factor of *all* the qualities of sensible things.

Phil. It is not my business to account for every opinion of the philosophers. But, among other reasons which may be assigned for this, it seems probable that pleasure and pain being rather annexed to the former than the latter may be one. Heat and cold, tastes and smells, have something more vividly pleasing or disagreeable than the ideas of extension, figure, and motion affect us with. And, it being too visibly absurd to hold that pain or pleasure can be in an unperceiving Substance, men are more easily weaned from believing the external existence of the Secondary than the Primary Qualities. You will be satisfied there is something in this, if you recollect the difference you made between an intense and more moderate degree of heat; allowing the one a real existence, while you denied it to the other. But, after all, there is no rational ground for that distinction; for, surely an indifferent sensation is as truly *a sensation* as one more pleasing or painful; and consequently should not any more than they be supposed to exist in an unthinking subject.

Hyl. It is just come into my head, Philonous, that I have somewhere heard of a distinction between absolute and sensible extension[1]. Now, though it be acknowledged that *great* and *small*, consisting merely in the relation which other extended beings have to the parts of our own bodies, do not really inhere in the substances themselves; yet nothing obliges us to hold the same with regard to *absolute extension*, which is something abstracted from *great* and *small*, from this or that particular magnitude or figure. So likewise as to motion; *swift* and *slow* are altogether relative to the succession of ideas in our own minds. But, it doth not follow, because those modifications of motion exist not without the mind, that therefore absolute motion abstracted from them doth not.

Phil. Pray what is it that distinguishes one motion, or one part of extension, from another? Is it not something sensible, as some degree of swiftness or slowness, some certain magnitude or figure peculiar to each?

[1] Cf. *New Theory of Vision*, sect. 122–126; *Principles*, sect. 123, &c.; *Siris*, sect. 270, &c.

Hyl. I think so.

Phil. These qualities, therefore, stripped of all sensible properties, are without all specific and numerical differences, as the schools call them.

Hyl. They are.

Phil. That is to say, they are extension in general, and motion in general.

Hyl. Let it be so.

Phil. But it is a universally received maxim that *Everything which exists is particular*[1]. How then can motion in general, or extension in general, exist in any corporeal substance?

Hyl. I will take time to solve your difficulty.

Phil. But I think the point may be speedily decided. Without doubt you can tell whether you are able to frame this or that idea. Now I am content to put our dispute on this issue. If you can frame in your thoughts a distinct *abstract idea* of motion or extension, divested of all those sensible modes, as swift and slow, great and small, round and square, and the like, which are acknowledged to exist only in the mind, I will then yield the point you contend for. But if you cannot, it will be unreasonable on your side to insist any longer upon what you have no notion[2] of.

Hyl. To confess ingenuously, I cannot.

Phil. Can you even separate the ideas of extension and motion from the ideas of all those qualities which they who make the distinction term *secondary*?

Hyl. What! is it not an easy matter to consider extension and motion by themselves, abstracted from all other sensible qualities? Pray how do the mathematicians treat of them?

Phil. I acknowledge, Hylas, it is not difficult to form general propositions and reasonings about those qualities, without mentioning any other; and, in this sense, to consider or treat of them abstractedly[3]. But, how doth it follow that, because I can pronounce the word *motion* by itself, I can form the idea of it in my mind exclusive

[1] Cf. *Principles*, Introduction, sect. 15.

[2] Is 'notion' here a synonym for idea?

[3] Cf. *Principles*, Introduction, sect. 16.

of body? or, because theorems may be made of extension and figures, without any mention of *great* or *small*, or any other sensible mode or quality, that therefore it is possible such an abstract idea of extension, without any particular size or figure, or sensible quality[1], should be distinctly formed, and apprehended by the mind? Mathematicians treat of quantity, without regarding what other sensible qualities it is attended with, as being altogether indifferent to their demonstrations. But, when laying aside the words, they contemplate the bare ideas, I believe you will find, they are not the pure abstracted ideas of extension.

Hyl. But what say you to *pure intellect*? May not abstracted ideas be framed by that faculty?

Phil. Since I cannot frame abstract ideas at all, it is plain I cannot frame them by the help of *pure intellect*; whatsoever faculty you understand by those words[2]. Besides, not to inquire into the nature of pure intellect and its spiritual objects, as *virtue*, *reason*, *God*, or the like, thus much seems manifest—that sensible things are only to be perceived by sense, or represented by the imagination. Figures, therefore, and extension, being originally perceived by sense, do not belong to pure intellect: but, for your farther satisfaction, try if you can frame the idea of any figure, abstracted from all particularities of size, or even from other sensible qualities.

Hyl. Let me think a little —— I do not find that I can.

Phil. And can you think it possible that should really exist in nature which implies a repugnancy in its conception?

Hyl. By no means.

Phil. Since therefore it is impossible even for the mind to disunite the ideas of extension and motion from all other sensible qualities, doth it not follow, that where the one exist there necessarily the other exist likewise?

Hyl. It should seem so.

[1] 'Size or figure, or sensible quality'—'size, colour, &c.,' in the first and second editions.

[2] In Berkeley's later and more exact terminology, the data or implicates of pure intellect are called *notions*, in contrast to his *ideas*, which are concrete or individual sensuous presentations.

Phil. Consequently, the very same arguments which you admitted as conclusive against the Secondary Qualities are, without any farther application of force, against the Primary too. Besides, if you will trust your senses, is it not plain all sensible qualities coexist, or to them appear as being in the same place? Do they ever represent a motion, or figure, as being divested of all other visible and tangible qualities?

Hyl. You need say no more on this head. I am free to own, if there be no secret error or oversight in our proceedings hitherto, that *all* sensible qualities are alike to be denied existence without the mind[1]. But, my fear is that I have been too liberal in my former concessions, or overlooked some fallacy or other. In short, I did not take time to think.

Phil. For that matter, Hylas, you may take what time you please in reviewing the progress of our inquiry. You are at liberty to recover any slips you might have made, or offer whatever you have omitted which makes for your first opinion.

Hyl. One great oversight I take to be this—that I did not sufficiently distinguish the *object* from the *sensation*[2]. Now, though this latter may not exist without the mind, yet it will not thence follow that the former cannot.

Phil. What object do you mean? the object of the senses?

Hyl. The same.

Phil. It is then immediately perceived?

Hyl. Right.

Phil. Make me to understand the difference between what is immediately perceived and a sensation.

Hyl. The sensation I take to be an act of the mind perceiving; besides which, there is something perceived; and this I call the *object.* For example, there is red and yellow on that tulip. But then the act of perceiving those colours is in me only, and not in the tulip.

Phil. What tulip do you speak of? Is it that which you see?

Hyl. The same.

[1] They need living percipient mind to make them real.

[2] So Reid's *Inquiry*, ch. ii. sect. 8, 9; *Essays on the Intellectual Powers*, II. ch. 16. Cf. *New Theory of Vision Vindicated*, sect. 8, &c.

Phil. And what do you see beside colour, figure, and extension [1]?

Hyl. Nothing.

Phil. What you would say then is that the red and yellow are coexistent with the extension; is it not?

Hyl. That is not all; I would say they have a real existence without the mind, in some unthinking substance.

Phil. That the colours are really in the tulip which I see is manifest. Neither can it be denied that this tulip may exist independent of your mind or mine; but, that any immediate object of the senses—that is, any idea, or combination of ideas—should exist in an unthinking substance, or exterior to *all* minds, is in itself an evident contradiction. Nor can I imagine how this follows from what you said just now, to wit, that the red and yellow were on the tulip *you saw*, since you do not pretend to *see* that unthinking substance.

Hyl. You have an artful way, Philonous, of diverting our inquiry from the subject.

Phil. I see you have no mind to be pressed that way. To return then to your distinction between *sensation* and *object*; if I take you right, you distinguish in every perception two things, the one an action of the mind, the other not.

Hyl. True.

Phil. And this action cannot exist in, or belong to, any unthinking thing [2]; but, whatever beside is implied in a perception may?

Hyl. That is my meaning.

Phil. So that if there was a perception without any act of the mind, it were possible such a perception should exist in an unthinking substance?

Hyl. I grant it. But it is impossible there should be such a perception.

Phil. When is the mind said to be active?

Hyl. When it produces, puts an end to, or changes, anything.

Phil. Can the mind produce, discontinue, or change anything, but by an act of the will?

Hyl. It cannot.

[1] i. e. figured or extended visible colour. Cf. *New Theory of Vision*, sect. 43, &c.

[2] Cf. *Principles*, sect. 25, 26.

Phil. The mind therefore is to be accounted *active* in its perceptions so far forth as *volition* is included in them?

Hyl. It is.

Phil. In plucking this flower I am active; because I do it by the motion of my hand, which was consequent upon my volition; so likewise in applying it to my nose. But is either of these smelling?

Hyl. No.

Phil. I act too in drawing the air through my nose; because my breathing so rather than otherwise is the effect of my volition. But neither can this be called *smelling*: for, if it were, I should smell every time I breathed in that manner?

Hyl. True.

Phil. Smelling then is somewhat consequent to all this?

Hyl. It is.

Phil. But I do not find my will concerned any farther. Whatever more there is—as that I perceive such a particular smell, or any smell at all—this is independent of my will, and therein I am altogether passive. Do you find it otherwise with you, Hylas?

Hyl. No, the very same.

Phil. Then, as to seeing, is it not in your power to open your eyes, or keep them shut; to turn them this or that way?

Hyl. Without doubt.

Phil. But, doth it in like manner depend on *your* will that in looking on this flower you perceive *white* rather than any other colour? Or, directing your open eyes towards yonder part of the heaven, can you avoid seeing the sun? Or is light or darkness the effect of your volition?

Hyl. No, certainly.

Phil. You are then in these respects altogether passive?

Hyl. I am.

Phil. Tell me now, whether *seeing* consists in perceiving light and colours, or in opening and turning the eyes?

Hyl. Without doubt, in the former.

Phil. Since therefore you are in the very perception of light and colours altogether passive, what is become of that action you were speaking of as an ingredient in every sensation? And, doth it not follow from your own concessions, that the perception of light and colours, including no action in it, may exist in an unperceiving substance? And is not this a plain contradiction?

Hyl. I know not what to think of it.

Phil. Besides, since you distinguish the *active* and *passive* in every perception, you must do it in that of pain. But how is it possible that pain, be it as little active as you please, should exist in an unperceiving substance? In short, do but consider the point, and then confess ingenuously, whether light and colours, tastes, sounds, &c. are not all equally passions or sensations in the soul. You may indeed call them *external objects*, and give them in words what subsistence you please. But, examine your own thoughts, and then tell me whether it be not as I say?

Hyl. I acknowledge, Philonous, that, upon a fair observation of what passes in my mind, I can discover nothing else but that I am a thinking being, affected with variety of sensations; neither is it possible to conceive how a sensation should exist in an unperceiving substance.—But then, on the other hand, when I look on sensible things in a different view, considering them as so many modes and qualities, I find it necessary to suppose a *material substratum*, without which they cannot be conceived to exist[1].

Phil. Material substratum call you it? Pray, by which of your senses came you acquainted with that being?

Hyl. It is not itself sensible; its modes and qualities only being perceived by the senses.

Phil. I presume then it was by reflexion and reason you obtained the idea of it?

Hyl. I do not pretend to any proper positive *idea* of it. However, I conclude it exists, because qualities cannot be conceived to exist without a support.

Phil. It seems then you have only a relative *notion* of it, or that you conceive it not otherwise than by conceiving the relation it bears to sensible qualities?

Hyl. Right.

Phil. Be pleased therefore to let me know wherein that relation consists.

[1] After maintaining, in the preceding part of this Dialogue, the inevitable dependence of all the qualities of Matter upon percipient Spirit, the argument now proceeds to dispose of the supposition that Matter may still be an unmanifested or unqualified *substratum*, independent of living percipient Spirit.

Hyl. Is it not sufficiently expressed in the term *substratum*, or *substance*?

Phil. If so, the word *substratum* should import that it is spread under the sensible qualities or accidents?

Hyl. True.

Phil. And consequently under extension?

Hyl. I own it.

Phil. It is therefore somewhat in its own nature entirely distinct from extension?

Hyl. I tell you, extension is only a mode, and Matter is something that supports modes. And is it not evident the thing supported is different from the thing supporting?

Phil. So that something distinct from, and exclusive of, extension is supposed to be the *substratum* of extension?

Hyl. Just so.

Phil. Answer me, Hylas. Can a thing be spread without extension? or is not the idea of extension necessarily included in *spreading*?

Hyl. It is.

Phil. Whatsoever therefore you suppose spread under anything must have in itself an extension distinct from the extension of that thing under which it is spread?

Hyl. It must.

Phil. Consequently, every corporeal substance, being the *substratum* of extension, must have in itself another extension, by which it is qualified to be a *substratum*: and so on to infinity? And I ask whether this be not absurd in itself, and repugnant to what you granted just now, to wit, that the *substratum* was something distinct from and exclusive of extension?

Hyl. Aye but, Philonous, you take me wrong. I do not mean that Matter is *spread* in a gross literal sense under extension. The word *substratum* is used only to express in general the same thing with *substance*.

Phil. Well then, let us examine the relation implied in the term *substance*. Is it not that it stands under accidents?

Hyl. The very same.

Phil. But, that one thing may stand under or support another, must it not be extended?

Hyl. It must.

Phil. Is not therefore this supposition liable to the same absurdity with the former?

Hyl. You still take things in a strict literal sense. That is not fair, Philonous.

Phil. I am not for imposing any sense on your words: you are at liberty to explain them as you please. Only, I beseech you, make me understand something by them. You tell me Matter supports or stands under accidents. How! is it as your legs support your body?

Hyl. No; that is the literal sense.

Phil. Pray let me know any sense, literal or not literal, that you understand it in.—How long must I wait for an answer, Hylas?

Hyl. I declare I know not what to say. I once thought I understood well enough what was meant by Matter's supporting accidents. But now, the more I think on it the less can I comprehend it: in short I find that I know nothing of it.

Phil. It seems then you have no idea at all, neither relative nor positive, of Matter; you know neither what it is in itself, nor what relation it bears to accidents?

Hyl. I acknowledge it.

Phil. And yet you asserted that you could not conceive how qualities or accidents should really exist, without conceiving at the same time a material support of them?

Hyl. I did.

Phil. That is to say, when you conceive the *real* existence of qualities, you do withal conceive Something which you cannot conceive?

Hyl. It was wrong, I own. But still I fear there is some fallacy or other. Pray what think you of this? It is just come into my head that the ground of all our mistake lies in your treating of each quality by itself. Now, I grant that each quality cannot singly subsist without the mind. Colour cannot without extension, neither can figure without some other sensible quality. But, as the several qualities united or blended together form entire sensible things, nothing hinders why such things may not be supposed to exist without the mind.

Phil. Either, Hylas, you are jesting, or have a very bad memory. Though indeed we went through all the qualities by name one after another, yet my arguments, or rather your concessions, nowhere tended to prove that the Secondary Qualities did not subsist each alone by

itself; but, that they were not *at all* without the mind. Indeed, in treating of figure and motion we concluded they could not exist without the mind, because it was impossible even in thought to separate them from all secondary qualities, so as to conceive them existing by themselves. But then this was not the only argument made use of upon that occasion. But (to pass by all that hath been hitherto said, and reckon it for nothing, if you will have it so) I am content to put the whole upon this issue. If you can conceive it possible for any mixture or combination of qualities, or any sensible object whatever, to exist without the mind, then I will grant it actually to be so.

Hyl. If it comes to that the point will soon be decided. What more easy than to conceive a tree or house existing by itself, independent of, and unperceived by, any mind whatsoever? I do at this present time conceive them existing after that manner.

Phil. How say you, Hylas, can you see a thing which is at the same time unseen?

Hyl. No, that were a contradiction.

Phil. Is it not as great a contradiction to talk of *conceiving* a thing which is *unconceived*?

Hyl. It is.

Phil. The tree or house therefore which you think of is conceived by you?

Hyl. How should it be otherwise?

Phil. And what is conceived is surely in the mind?

Hyl. Without question, that which is conceived is in the mind.

Phil. How then came you to say, you conceived a house or tree existing independent and out of all minds whatsoever?

Hyl. That was I own an oversight; but stay, let me consider what led me into it.—It is a pleasant mistake enough. As I was thinking of a tree in a solitary place, where no one was present to see it, methought that was to conceive a tree as existing unperceived or unthought of; not considering that I myself conceived it all the while. But now I plainly see that all I can do is to frame ideas in my own mind. I may indeed conceive in my own thoughts the idea of a tree, or a house, or a mountain, but

that is all. And this is far from proving that I can conceive them *existing out of the minds of all Spirits.*

Phil. You acknowledge then that you cannot possibly conceive how any one corporeal sensible thing should exist otherwise than in a mind?

Hyl. I do.

Phil. And yet you will earnestly contend for the truth of that which you cannot so much as conceive?

Hyl. I profess I know not what to think; but still there are some scruples remain with me. Is it not certain I *see things at a distance*? Do we not perceive the stars and moon, for example, to be a great way off? Is not this, I say, manifest to the senses?

Phil. Do you not in a dream too perceive those or the like objects?

Hyl. I do.

Phil. And have they not then the same appearance of being distant?

Hyl. They have.

Phil. But you do not thence conclude the apparitions in a dream to be without the mind?

Hyl. By no means.

Phil. You ought not therefore to conclude that sensible objects are without the mind, from their appearance, or manner wherein they are perceived.

Hyl. I acknowledge it. But doth not my sense deceive me in those cases?

Phil. By no means. The idea or thing which you immediately perceive, neither sense nor reason informs you that *it* actually exists without the mind. By sense you only know that you are affected with such certain sensations of light and colours, &c. And these you will not say are without the mind.

Hyl. True: but, beside all that, do you not think the sight suggests something of *outness* or *distance*?

Phil. Upon approaching a distant object, do the visible size and figure change perpetually, or do they appear the same at all distances?

Hyl. They are in a continual change.

Phil. Sight therefore doth not suggest, or any way inform you, that the visible object you immediately per-

ceive exists at a distance[1], or will be perceived when you advance farther onward; there being a continued series of visible objects succeeding each other during the whole time of your approach.

Hyl. It doth not; but still I know, upon seeing an object, what object I shall perceive after having passed over a certain distance: no matter whether it be exactly the same or no: there is still something of distance suggested in the case.

Phil. Good Hylas, do but reflect a little on the point, and then tell me whether there be any more in it than this: From the ideas you actually perceive by sight, you have by experience learned to collect what other ideas you will (according to the standing order of nature) be affected with, after such a certain succession of time and motion.

Hyl. Upon the whole, I take it to be nothing else.

Phil. Now, is it not plain that if we suppose a man born blind was on a sudden made to see, he could at first have no experience of what may be *suggested* by sight?

Hyl. It is.

Phil. He would not then, according to you, have any notion of distance annexed to the things he saw; but would take them for a new set of sensations, existing only in his mind?

Hyl. It is undeniable.

Phil. But, to make it still more plain: is not *distance* a line turned endwise to the eye[2]?

Hyl. It is.

Phil. And can a line so situated be perceived by sight?

Hyl. It cannot.

Phil. Doth it not therefore follow that distance is not properly and immediately perceived by sight?

Hyl. It should seem so.

Phil. Again, is it your opinion that colours are at a distance[3]?

Hyl. It must be acknowledged they are only in the mind.

Phil. But do not colours appear to the eye as coexisting in the same place with extension and figures?

[1] [See the *Essay towards a New Theory of Vision*, and its *Vindication*.] Note by the *Author* in the 1734 edition.

[2] Cf. *Essay on Vision*, sect. 2.

[3] Cf. Ibid., sect. 43.

Hyl. They do.

Phil. How can you then conclude from sight that figures exist without, when you acknowledge colours do not; the sensible appearance being the very same with regard to both?

Hyl. I know not what to answer.

Phil. But, allowing that distance was truly and immediately perceived by the mind, yet it would not thence follow it existed out of the mind. For, whatever is immediately perceived is an idea[1]: and can any idea exist out of the mind?

Hyl. To suppose that were absurd: but, inform me, Philonous, can we perceive or know nothing beside our ideas[2]?

Phil. As for the rational deducing of causes from effects, that is beside our inquiry. And, by the senses you can best tell whether you perceive anything which is not immediately perceived. And I ask you, whether the things immediately perceived are other than your own sensations or ideas? You have indeed more than once, in the course of this conversation, declared yourself on those points; but you seem, by this last question, to have departed from what you then thought.

Hyl. To speak the truth, Philonous, I think there are two kinds of objects:—the one perceived immediately, which are likewise called *ideas*; the other are real things or external objects, perceived by the mediation of ideas, which are their images and representations. Now, I own ideas do not exist without the mind; but the latter sort of objects do. I am sorry I did not think of this distinction sooner; it would probably have cut short your discourse.

Phil. Are those external objects perceived by sense, or by some other faculty?

Hyl. They are perceived by sense.

Phil. How! Is there anything perceived by sense which is not immediately perceived?

Hyl. Yes, Philonous, in some sort there is. For example, when I look on a picture or statue of Julius Cæsar, I may

[1] 'an idea,' i. e. a phenomenon present to our senses.

[2] This was Reid's fundamental question in his criticism of Berkeley.

be said after a manner to perceive him (though not immediately) by my senses.

Phil. It seems then you will have our ideas, which alone are immediately perceived, to be pictures of external things: and that these also are perceived by sense, inasmuch as they have a conformity or resemblance to our ideas?

Hyl. That is my meaning.

Phil. And, in the same way that Julius Cæsar, in himself invisible, is nevertheless perceived by sight; real things, in themselves imperceptible, are perceived by sense.

Hyl. In the very same.

Phil. Tell me, Hylas, when you behold the picture of Julius Cæsar, do you see with your eyes any more than some colours and figures, with a certain symmetry and composition of the whole?

Hyl. Nothing else.

Phil. And would not a man who had never known anything of Julius Cæsar see as much?

Hyl. He would.

Phil. Consequently he hath his sight, and the use of it, in as perfect a degree as you?

Hyl. I agree with you.

Phil. Whence comes it then that your thoughts are directed to the Roman emperor, and his are not? This cannot proceed from the sensations or ideas of sense by you then perceived; since you acknowledge you have no advantage over him in that respect. It should seem therefore to proceed from reason and memory: should it not?

Hyl. It should.

Phil. Consequently, it will not follow from that instance that anything is perceived by sense which is not immediately perceived. Though I grant we may, in one acceptation, be said to perceive sensible things mediately by sense: that is, when, from a frequently perceived connexion, the immediate perception of ideas by one sense *suggests* to the mind others, perhaps belonging to another sense, which are wont to be connected with them. For instance, when I hear a coach drive along the streets, immediately I perceive only the sound; but, from the experience I have had

that such a sound is connected with a coach, I am said to hear the coach. It is nevertheless evident that, in truth and strictness, nothing can be *heard* but *sound*; and the coach is not then properly perceived by sense, but suggested from experience. So likewise when we are said to see a red-hot bar of iron; the solidity and heat of the iron are not the objects of sight, but suggested to the imagination by the colour and figure which are properly perceived by that sense. In short, those things alone are actually and strictly perceived by any sense, which would have been perceived in case that same sense had then been first conferred on us. As for other things, it is plain they are only suggested to the mind by experience, grounded on former perceptions. But, to return to your comparison of Cæsar's picture, it is plain, if you keep to that, you must hold the real things, or archetypes of our ideas, are not perceived by sense, but by some internal faculty of the soul, as reason or memory. I would therefore fain know what arguments you can draw from reason for the existence of what you call *real things* or *material objects*. Or, whether you remember to have seen them formerly as they are in themselves; or, if you have heard or read of any one that did.

Hyl. I see, Philonous, you are disposed to raillery; but that will never convince me.

Phil. My aim is only to learn from you the way to come at the knowledge of *material beings*. Whatever we perceive is perceived immediately or mediately: by sense, or by reason and reflexion. But, as you have excluded sense, pray shew me what reason you have to believe their existence; or what *medium* you can possibly make use of to prove it, either to mine or your own understanding.

Hyl. To deal ingenuously, Philonous, now I consider the point, I do not find I can give you any good reason for it. But, thus much seems pretty plain, that it is at least possible such things may really exist. And, as long as there is no absurdity in supposing them, I am resolved to believe as I did, till you bring good reasons to the contrary.

Phil. What! Is it come to this, that you only *believe* the existence of material objects, and that your belief is

founded barely on the possibility of its being true? Then you will have me bring reasons against it: though another would think it reasonable the proof should lie on him who holds the affirmative. And, after all, this very point which you are now resolved to maintain, without any reason, is in effect what you have more than once during this discourse seen good reason to give up. But, to pass over all this; if I understand you rightly, you say our ideas do not exist without the mind, but that they are copies, images, or representations, of certain originals that do?

Hyl. You take me right.

Phil. They are then like external things[1]?

Hyl. They are.

Phil. Have those things a stable and permanent nature, independent of our senses; or are they in a perpetual change, upon our producing any motions in our bodies—suspending, exerting, or altering, our faculties or organs of sense?

Hyl. Real things, it is plain, have a fixed and real nature, which remains the same notwithstanding any change in our senses, or in the posture and motion of our bodies; which indeed may affect the ideas in our minds, but it were absurd to think they had the same effect on things existing without the mind.

Phil. How then is it possible that things perpetually fleeting and variable as our ideas should be copies or images of anything fixed and constant? Or, in other words, since all sensible qualities, as size, figure, colour, &c., that is, our ideas, are continually changing, upon every alteration in the distance, medium, or instruments of sensation; how can any determinate material objects be properly represented or painted forth by several distinct things, each of which is so different from and unlike the rest? Or, if you say it resembles some one only of our ideas, how shall we be able to distinguish the true copy from all the false ones?

Hyl. I profess, Philonous, I am at a loss. I know not what to say to this.

Phil. But neither is this all. Which are material objects in themselves—perceptible or imperceptible?

[1] Cf. *Principles*, sect. 8.

Hyl. Properly and immediately nothing can be perceived but ideas. All material things, therefore, are in themselves insensible, and to be perceived only by our ideas.

Phil. Ideas then are sensible, and their archetypes or originals insensible?

Hyl. Right.

Phil. But how can that which is sensible be *like* that which is insensible? Can a real thing, in itself *invisible*, be like a *colour*; or a real thing, which is not *audible*, be like a *sound*? In a word, can anything be like a sensation or idea, but another sensation or idea?

Hyl. I must own, I think not.

Phil. Is it possible there should be any doubt on the point? Do you not perfectly know your own ideas?

Hyl. I know them perfectly; since what I do not perceive or know can be no part of my idea[1].

Phil. Consider, therefore, and examine them, and then tell me if there be anything in them which can exist without the mind: or if you can conceive anything like them existing without the mind.

Hyl. Upon inquiry, I find it is impossible for me to conceive or understand how anything but an idea can be like an idea. And it is most evident that *no idea can exist without the mind*[2].

Phil. You are therefore, by your principles, forced to deny the *reality* of sensible things; since you made it to consist in an absolute existence exterior to the mind. That is to say, you are a downright sceptic. So I have gained my point, which was to shew your principles led to Scepticism.

Hyl. For the present I am, if not entirely convinced, at least silenced.

Phil. I would fain know what more you would require in order to a perfect conviction. Have you not had the liberty of explaining yourself all manner of ways? Were any little slips in discourse laid hold and insisted on? Or were you not allowed to retract or reinforce anything you had offered, as best served your purpose? Hath not everything you could say been heard and examined with

[1] Cf. *Principles*, sect. 25, 26.

[2] In other words, the percipient activity of a living spirit is the necessary condition of the real existence of all ideas or phenomena immediately present to our senses.

all the fairness imaginable? In a word, have you not in every point been convinced out of your own mouth? And, if you can at present discover any flaw in any of your former concessions, or think of any remaining subterfuge, any new distinction, colour, or comment whatsoever, why do you not produce it?

Hyl. A little patience, Philonous. I am at present so amazed to see myself ensnared, and as it were imprisoned in the labyrinths you have drawn me into, that on the sudden it cannot be expected I should find my way out. You must give me time to look about me and recollect myself.

Phil. Hark; is not this the college bell?

Hyl. It rings for prayers.

Phil. We will go in then, if you please, and meet here again to-morrow morning. In the meantime, you may employ your thoughts on this morning's discourse, and try if you can find any fallacy in it, or invent any new means to extricate yourself.

Hyl. Agreed.

THE SECOND DIALOGUE

Hylas. I beg your pardon, Philonous, for not meeting you sooner. All this morning my head was so filled with our late conversation that I had not leisure to think of the time of the day, or indeed of anything else.

Philonous. I am glad you were so intent upon it, in hopes if there were any mistakes in your concessions, or fallacies in my reasonings from them, you will now discover them to me.

Hyl. I assure you I have done nothing ever since I saw you but search after mistakes and fallacies, and, with that view, have minutely examined the whole series of yesterday's discourse: but all in vain, for the notions it led me into, upon review, appear still more clear and evident; and, the more I consider them, the more irresistibly do they force my assent.

Phil. And is not this, think you, a sign that they are genuine, that they proceed from nature, and are conformable to right reason? Truth and beauty are in this alike, that the strictest survey sets them both off to advantage; while the false lustre of error and disguise cannot endure being reviewed, or too nearly inspected.

Hyl. I own there is a great deal in what you say. Nor can any one be more entirely satisfied of the truth of those odd consequences, so long as I have in view the reasonings that lead to them. But, when these are out of my thoughts, there seems, on the other hand, something so satisfactory, so natural and intelligible, in the modern way of explaining things that, I profess, I know not how to reject it.

Phil. I know not what way you mean.

Hyl. I mean the way of accounting for our sensations or ideas.

Phil. How is that?

Hyl. It is supposed the soul makes her residence in some part of the brain, from which the nerves take their rise, and are thence extended to all parts of the body; and that outward objects, by the different impressions they make on the organs of sense, communicate certain vibrative motions to the nerves; and these being filled with spirits propagate them to the brain or seat of the soul, which, according to the various impressions or traces thereby made in the brain, is variously affected with ideas[1].

Phil. And call you this an explication of the manner whereby we are affected with ideas?

Hyl. Why not, Philonous? Have you anything to object against it?

Phil. I would first know whether I rightly understand your hypothesis. You make certain traces in the brain to be the causes or occasions of our ideas. Pray tell me whether by the *brain* you mean any sensible thing.

Hyl. What else think you I could mean?

Phil. Sensible things are all immediately perceivable; and those things which are immediately perceivable are ideas; and these exist only in the mind. Thus much you have, if I mistake not, long since agreed to.

Hyl. I do not deny it.

Phil. The brain therefore you speak of, being a sensible thing, exists only in the mind[2]. Now, I would fain know whether you think it reasonable to suppose that one idea or thing existing in the mind occasions all other ideas. And, if you think so, pray how do you account for the origin of that primary idea or brain itself?

Hyl. I do not explain the origin of our ideas by that brain which is perceivable to sense—this being itself only a combination of sensible ideas—but by another which I imagine.

[1] An 'explanation' afterwards elaborately developed by Hartley, in his *Observations on Man* (1749). Berkeley has probably Hobbes in view.

[2] The brain with the human body in which it is included constitutes a part of the material world, and must equally with the rest of the material world depend for its realisation upon percipient Spirit as the realising factor.

Phil. But are not things imagined as truly *in the mind* as things perceived [1]?

Hyl. I must confess they are.

Phil. It comes, therefore, to the same thing; and you have been all this while accounting for ideas by certain motions or impressions of the brain; that is, by some alterations in an idea, whether sensible or imaginable it matters not.

Hyl. I begin to suspect my hypothesis.

Phil. Besides spirits, all that we know or conceive are our own ideas. When, therefore, you say all ideas are occasioned by impressions in the brain, do you conceive this brain or no? If you do, then you talk of ideas imprinted in an idea causing that same idea, which is absurd. If you do not conceive it, you talk unintelligibly, instead of forming a reasonable hypothesis.

Hyl. I now clearly see it was a mere dream. There is nothing in it.

Phil. You need not be much concerned at it; for after all, this way of explaining things, as you called it, could never have satisfied any reasonable man. What connexion is there between a motion in the nerves, and the sensations of sound or colour in the mind? Or how is it possible these should be the effect of that?

Hyl. But I could never think it had so little in it as now it seems to have.

Phil. Well then, are you at length satisfied that no sensible things have a real existence; and that you are in truth an arrant sceptic?

Hyl. It is too plain to be denied.

Phil. Look! are not the fields covered with a delightful verdure? Is there not something in the woods and groves, in the rivers and clear springs, that soothes, that delights, that transports the soul? At the prospect of the wide and deep ocean, or some huge mountain whose top is lost in the clouds, or of an old gloomy forest, are not our minds filled with a pleasing horror? Even in rocks and deserts is there not an agreeable wildness? How sincere a pleasure is it to behold the natural beauties of the earth! To preserve and renew our relish for them, is not the veil of night

[1] Cf. *Principles*, sect. 23.

alternately drawn over her face, and doth she not change her dress with the seasons? How aptly are the elements disposed! What variety and use [[1] in the meanest productions of nature!] What delicacy, what beauty, what contrivance, in animal and vegetable bodies! How exquisitely are all things suited, as well to their particular ends, as to constitute opposite parts of the whole! And, while they mutually aid and support, do they not also set off and illustrate each other? Raise now your thoughts from this ball of earth to all those glorious luminaries that adorn the high arch of heaven. The motion and situation of the planets, are they not admirable for use and order? Were those (miscalled *erratic*) globes once known to stray, in their repeated journeys through the pathless void? Do they not measure areas round the sun ever proportioned to the times? So fixed, so immutable are the laws by which the unseen Author of nature actuates the universe. How vivid and radiant is the lustre of the fixed stars! How magnificent and rich that negligent profusion with which they appear to be scattered throughout the whole azure vault! Yet, if you take the telescope, it brings into your sight a new host of stars that escape the naked eye. Here they seem contiguous and minute, but to a nearer view immense orbs of light at various distances, far sunk in the abyss of space. Now you must call imagination to your aid. The feeble narrow sense cannot descry innumerable worlds revolving round the central fires; and in those worlds the energy of an all-perfect Mind displayed in endless forms. But, neither sense nor imagination are big enough to comprehend the boundless extent, with all its glittering furniture. Though the labouring mind exert and strain each power to its utmost reach, there still stands out ungrasped a surplusage immeasurable. Yet all the vast bodies that compose this mighty frame, how distant and remote soever, are by some secret mechanism, some Divine art and force, linked in a mutual dependence and intercourse with each other; even with this earth, which was almost slipt from my thoughts and lost in the crowd of worlds. Is not the whole system immense, beautiful, glorious beyond expression and beyond thought! What treatment, then, do those philosophers deserve, who would

[1] 'in stones and minerals'—in first and second editions.

deprive these noble and delightful scenes of all *reality*? How should those Principles be entertained that lead us to think all the visible beauty of the creation a false imaginary glare? To be plain, can you expect this Scepticism of yours will not be thought extravagantly absurd by all men of sense?

Hyl. Other men may think as they please; but for your part you have nothing to reproach me with. My comfort is, you are as much a sceptic as I am.

Phil. There, Hylas, I must beg leave to differ from you.

Hyl. What! Have you all along agreed to the premises, and do you now deny the conclusion, and leave me to maintain those paradoxes by myself which you led me into? This surely is not fair.

Phil. I deny that I agreed with you in those notions that led to Scepticism. You indeed said the *reality* of sensible things consisted in an *absolute existence out of the minds of spirits*, or distinct from their being perceived. And pursuant to this notion of reality, *you* are obliged to deny sensible things any real existence: that is, according to your own definition, you profess yourself a sceptic. But I neither said nor thought the reality of sensible things was to be defined after that manner. To me it is evident, for the reasons you allow of, that sensible things cannot exist otherwise than in a mind or spirit. Whence I conclude, not that they have no real existence, but that, seeing they depend not on my thought, and have an existence distinct from being perceived by me[1], *there must be some other Mind wherein they exist.* As sure, therefore, as the sensible world really exists, so sure is there an infinite omnipresent Spirit who contains and supports it.

Hyl. What! This is no more than I and all Christians hold; nay, and all others too who believe there is a God, and that He knows and comprehends all things.

Phil. Aye, but here lies the difference. Men commonly believe that all things are known or perceived by God, because they believe the being of a God; whereas I, on the other side, immediately and necessarily conclude the

[1] Cf. *Principles*, sect. 29–33; also sect. 90.—The *permanence* of a sensible thing, during intervals in which it may be unperceived and unimagined by human beings, is here assumed, as a natural conviction.

being of a God, because all sensible things must be perceived by Him[1].

Hyl. But, so long as we all believe the same thing, what matter is it how we come by that belief?

Phil. But neither do we agree in the same opinion. For philosophers, though they acknowledge all corporeal beings to be perceived by God, yet they attribute to them an absolute subsistence distinct from their being perceived by any mind whatever; which I do not. Besides, is there no difference between saying, *There is a God, therefore He perceives all things;* and saying, *Sensible things do really exist; and, if they really exist, they are necessarily perceived by an infinite Mind: therefore there is an infinite Mind, or God*[2]*?* This furnishes you with a direct and immediate demonstration, from a most evident principle, of the *being of a God.* Divines and philosophers had proved beyond all controversy, from the beauty and usefulness of the several parts of the creation, that it was the workmanship of God. But that—setting aside all help of astronomy and natural philosophy, all contemplation of the contrivance, order, and adjustment of things—an infinite Mind should be necessarily inferred from[3] the bare *existence of the sensible world,* is an advantage to them only who have made this easy reflexion: That the sensible world is that which we perceive by our several senses; and that nothing is perceived by the senses beside ideas; and that no idea or archetype of an idea can exist otherwise than in a mind. You may now, without any laborious search into the sciences, without any subtlety of reason, or tedious length of discourse, oppose and baffle the most strenuous advocate for Atheism. Those miserable refuges, whether in an eternal succession of unthinking causes and effects, or in a fortuitous concourse of atoms; those wild imaginations of Vanini, Hobbes, and Spinoza: in a word, the whole system of Atheism, is it not entirely overthrown, by this

[1] In other words, men are apt to treat the omniscience of God as an inference from the dogmatic assumption that God exists, instead of seeing that our cosmic experience necessarily presupposes omnipotent and omniscient Intelligence at its root.

[2] Cf. *Principles*, sect. 90. A permanent material world is grounded on Divine Mind, because it cannot but depend on Mind, while its reality is only partially and at intervals sustained by finite minds.

[3] 'necessarily inferred from'—rather necessarily presupposed in.

single reflexion on the repugnancy included in supposing the whole, or any part, even the most rude and shapeless, of the visible world, to exist without a Mind? Let any one of those abettors of impiety but look into his own thoughts, and there try if he can conceive how so much as a rock, a desert, a chaos, or confused jumble of atoms; how anything at all, either sensible or imaginable, can exist independent of a Mind, and he need go no farther to be convinced of his folly. Can anything be fairer than to put a dispute on such an issue, and leave it to a man himself to see if he can conceive, even in thought, what he holds to be true in fact, and from a notional to allow it a real existence[1]?

Hyl. It cannot be denied there is something highly serviceable to religion in what you advance. But do you not think it looks very like a notion entertained by some eminent moderns[2], of *seeing all things in God*?

Phil. I would gladly know that opinion: pray explain it to me.

Hyl. They conceive that the soul, being immaterial, is incapable of being united with material things, so as to perceive them in themselves; but that she perceives them by her union with the substance of God, which, being spiritual, is therefore purely intelligible, or capable of being the immediate object of a spirit's thought. Besides, the Divine essence contains in it perfections correspondent to each created being; and which are, for that reason, proper to exhibit or represent them to the mind.

Phil. I do not understand how our ideas, which are things altogether passive and inert[3], can be the essence, or any part (or like any part) of the essence or substance of God, who is an impassive, indivisible, pure, active being. Many more difficulties and objections there are which occur at first view against this hypothesis; but I shall only

[1] The present reality of Something implies the eternal existence of living Mind, if Something *must* exist eternally, and if real or concrete existence involves living Mind. Berkeley's conception of material nature presupposes a theistic basis.

[2] He refers of course to Malebranche and his Divine Vision.

[3] But Malebranche uses *idea* in a higher meaning than Berkeley does—akin to the Platonic, and in contrast to the sensuous phenomena which Berkeley calls ideas.

add, that it is liable to all the absurdities of the common hypothesis, in making a created world exist otherwise than in the mind of a Spirit. Beside all which it hath this peculiar to itself; that it makes that material world serve to no purpose. And, if it pass for a good argument against other hypotheses in the sciences, that they suppose Nature, or the Divine wisdom, to make something in vain, or do that by tedious roundabout methods which might have been performed in a much more easy and compendious way, what shall we think of that hypothesis which supposes the whole world made in vain?

Hyl. But what say you? Are not you too of opinion that we see all things in God? If I mistake not, what you advance comes near it.

Phil. [[1] Few men think; yet all have opinions. Hence men's opinions are superficial and confused. It is nothing strange that tenets which in themselves are ever so different, should nevertheless be confounded with each other, by those who do not consider them attentively. I shall not therefore be surprised if some men imagine that I run into the enthusiasm of Malebranche; though in truth I am very remote from it. He builds on the most abstract general ideas, which I entirely disclaim. He asserts an absolute external world, which I deny. He maintains that we are deceived by our senses, and know not the real natures or the true forms and figures of extended beings; of all which I hold the direct contrary. So that upon the whole there are no Principles more fundamentally opposite than his and mine. It must be owned that] I entirely agree with what the holy Scripture saith, 'That in God we live and move and have our being.' But that we see things in His essence, after the manner above set forth, I am far from believing. Take here in brief my meaning:—It is evident that the things I perceive are my own ideas, and that no idea can exist unless it be in a mind: nor is it less plain that these ideas or things by me perceived, either themselves or their archetypes, exist independently of *my* mind, since I know myself not to be their author, it being out of my power to determine at pleasure what particular ideas I shall be affected with

[1] The passage within brackets first appeared in the third edition.

upon opening my eyes or ears[1]: they must therefore exist in some other Mind, whose Will it is they should be exhibited to me. The things, I say, immediately perceived are ideas or sensations, call them which you will. But how can any idea or sensation exist in, or be produced by, anything but a mind or spirit? This indeed is inconceivable[2]. And to assert that which is inconceivable is to talk nonsense: is it not?

Hyl. Without doubt.

Phil. But, on the other hand, it is very conceivable that they should exist in and be produced by a Spirit; since this is no more than I daily experience in myself[3], inasmuch as I perceive numberless ideas; and, by an act of my will, can form a great variety of them, and raise them up in my imagination: though, it must be confessed, these creatures of the fancy are not altogether so distinct, so strong, vivid, and permanent, as those perceived by my senses—which latter are called *real things*. From all which I conclude, *there is a Mind which affects me every moment with all the sensible impressions I perceive*. And, from the variety, order, and manner of these, I conclude *the Author of them to be wise, powerful, and good, beyond comprehension*. Mark it well; I do not say, I see things by perceiving that which represents them in the intelligible Substance of God. This I do not understand; but I say, the things by me perceived are known by the understanding, and produced by the will of an infinite Spirit. And is not all this most plain and evident? Is there any more in it than what a little observation in our own minds, and that which passeth in them, not only enables us to conceive, but also obliges us to acknowledge?

Hyl. I think I understand you very clearly; and own the proof you give of a Deity seems no less evident than it is surprising. But, allowing that God is the supreme and universal Cause of all things, yet, may there not be still a Third Nature besides Spirits and Ideas? May we

[1] Cf. *Principles*, sect. 25–33.

[2] Cf. Ibid., sect. 3–24.

[3] I *can* represent to myself another mind perceiving and conceiving things; because I have an example of this in my own conscious life. I *cannot* represent to myself sensible things existing totally unperceived and unimagined; because I cannot, without a contradiction, have an example of this in my own experience.

not admit a subordinate and limited cause of our ideas? In a word, may there not for all that be *Matter*?

Phil. How often must I inculcate the same thing? You allow the things immediately perceived by sense to exist nowhere without the mind; but there is nothing perceived by sense which is not perceived immediately: therefore there is nothing sensible that exists without the mind. The Matter, therefore, which you still insist on is something intelligible, I suppose; something that may be discovered by reason[1], and not by sense.

Hyl. You are in the right.

Phil. Pray let me know what reasoning your belief of Matter is grounded on; and what this Matter is, in your present sense of it.

Hyl. I find myself affected with various ideas, whereof I know I am not the cause; neither are they the cause of themselves, or of one another, or capable of subsisting by themselves, as being altogether inactive, fleeting, dependent beings. They have therefore *some* cause distinct from me and them: of which I pretend to know no more than that it is *the cause of my ideas*. And this thing, whatever it be, I call Matter.

Phil. Tell me, Hylas, hath every one a liberty to change the current proper signification attached to a common name in any language? For example, suppose a traveller should tell you that in a certain country men pass unhurt through the fire; and, upon explaining himself, you found he meant by the word *fire* that which others call *water*. Or, if he should assert that there are trees that walk upon two legs, meaning men by the term *trees*. Would you think this reasonable?

Hyl. No; I should think it very absurd. Common custom is the standard of propriety in language. And for any man to affect speaking improperly is to pervert the use of speech, and can never serve to a better purpose than to protract and multiply disputes where there is no difference in opinion.

Phil. And doth not *Matter*, in the common current acceptation of the word, signify an extended, solid, moveable, unthinking, inactive Substance?

Hyl. It doth.

[1] 'reason,' i. e. by reasoning.

Phil. And, hath it not been made evident that no *such* substance can possibly exist[1]? And, though it should be allowed to exist, yet how can that which is *inactive* be a *cause*; or that which is *unthinking* be a *cause of thought*? You may, indeed, if you please, annex to the word *Matter* a contrary meaning to what is vulgarly received; and tell me you understand by it, an unextended, thinking, active being, which is the cause of our ideas. But what else is this than to play with words, and run into that very fault you just now condemned with so much reason? I do by no means find fault with your reasoning, in that you collect *a* cause from the *phenomena*: but I deny that *the* cause deducible by reason can properly be termed Matter[2].

Hyl. There is indeed something in what you say. But I am afraid you do not thoroughly comprehend my meaning. I would by no means be thought to deny that God, or an infinite Spirit, is the Supreme Cause of all things. All I contend for is, that, subordinate to the Supreme Agent, there is a cause of a limited and inferior nature, which *concurs* in the production of our ideas, not by any act of will, or spiritual efficiency, but by that kind of action which belongs to Matter, viz. *motion*.

Phil. I find you are at every turn relapsing into your old exploded conceit, of a moveable, and consequently an extended, substance, existing without the mind. What! Have you already forgotten you were convinced; or are you willing I should repeat what has been said on that head? In truth this is not fair dealing in you, still to suppose the being of that which you have so often acknowledged to have no being. But, not to insist farther on what has been so largely handled, I ask whether all your ideas are not perfectly passive and inert, including nothing of action in them[3].

Hyl. They are.

Phil. And are sensible qualities anything else but ideas?

[1] Berkeley's *material substance* is a natural or divinely ordered aggregate of sensible qualities or phenomena.

[2] Inasmuch as, according to Berkeley, it must be a living Spirit, and it would be an abuse of language to call this Matter.

[3] Cf. *Principles*, sect. 25, 26.

Hyl. How often have I acknowledged that they are not.

Phil. But is not *motion* a sensible quality?

Hyl. It is.

Phil. Consequently it is no action?

Hyl. I agree with you. And indeed it is very plain that when I stir my finger, it remains passive; but my will which produced the motion is active.

Phil. Now, I desire to know, in the first place, whether, motion being allowed to be no action, you can conceive any action besides volition: and, in the second place, whether to say something and conceive nothing be not to talk nonsense[1]: and, lastly, whether, having considered the premises, you do not perceive that to suppose any efficient or active Cause of our ideas, other than *Spirit*, is highly absurd and unreasonable?

Hyl. I give up the point entirely. But, though Matter may not be a cause, yet what hinders its being an *instrument*, subservient to the supreme Agent in the production of our ideas?

Phil. An instrument say you; pray what may be the figure, springs, wheels, and motions, of that instrument?

Hyl. Those I pretend to determine nothing of, both the substance and its qualities being entirely unknown to me.

Phil. What? You are then of opinion it is made up of unknown parts, that it hath unknown motions, and an unknown shape?

Hyl. I do not believe that it hath any figure or motion at all, being already convinced, that no sensible qualities can exist in an unperceiving substance.

Phil. But what notion is it possible to frame of an instrument void of all sensible qualities, even extension itself?

Hyl. I do not pretend to have any notion of it.

Phil. And what reason have you to think this unknown, this inconceivable Somewhat doth exist? Is it that you imagine God cannot act as well without it; or that you find by experience the use of some such thing, when you form ideas in your own mind?

[1] It is here argued that as *volition* is the only *originative* cause implied in our experience, and which consequently alone puts true meaning into the term Cause, to apply that term to what is not volition is to make it meaningless, or at least to misapply it.

Hyl. You are always teasing me for reasons of my belief. Pray what reasons have you not to believe it?

Phil. It is to me a sufficient reason not to believe the existence of anything, if I see no reason for believing it. But, not to insist on reasons for believing, you will not so much as let me know *what it is* you would have me believe; since you say you have no manner of notion of it. After all, let me entreat you to consider whether it be like a philosopher, or even like a man of common sense, to pretend to believe you know not what, and you know not why.

Hyl. Hold, Philonous. When I tell you Matter is an *instrument*, I do not mean altogether nothing. It is true I know not the particular kind of instrument; but, however, I have some notion of *instrument in general*, which I apply to it.

Phil. But what if it should prove that there is something, even in the most general notion of *instrument*, as taken in a distinct sense from *cause*, which makes the use of it inconsistent with the Divine attributes?

Hyl. Make that appear and I shall give up the point.

Phil. What mean you by the general nature or notion of *instrument*?

Hyl. That which is common to all particular instruments composeth the general notion.

Phil. Is it not common to all instruments, that they are applied to the doing those things only which cannot be performed by the mere act of our wills? Thus, for instance, I never use an instrument to move my finger, because it is done by a volition. But I should use one if I were to remove part of a rock, or tear up a tree by the roots. Are you of the same mind? Or, can you shew any example where an instrument is made use of in producing an effect *immediately* depending on the will of the agent?

Hyl. I own I cannot.

Phil. How therefore can you suppose that an All-perfect Spirit, on whose Will all things have an absolute and immediate dependence, should need an instrument in his operations, or, not needing it, make use of it? Thus it seems to me that you are obliged to own the use of a lifeless inactive instrument to be incompatible with the infinite

perfection of God; that is, by your own confession, to give up the point.

Hyl. It doth not readily occur what I can answer you.

Phil. But, methinks you should be ready to own the truth, when it has been fairly proved to you. We indeed, who are beings of finite powers, are forced to make use of instruments. And the use of an instrument sheweth the agent to be limited by rules of another's prescription, and that he cannot obtain his end but in such a way, and by such conditions. Whence it seems a clear consequence, that the supreme unlimited Agent useth no tool or instrument at all. The will of an Omnipotent Spirit is no sooner exerted than executed, without the application of means; which, if they are employed by inferior agents, it is not upon account of any real efficacy that is in them, or necessary aptitude to produce any effect, but merely in compliance with the laws of nature, or those conditions prescribed to them by the First Cause, who is Himself above all limitation or prescription whatsoever[1].

Hyl. I will no longer maintain that Matter is an instrument. However, I would not be understood to give up its existence neither; since, notwithstanding what hath been said, it may still be an *occasion*[2].

Phil. How many shapes is your Matter to take? Or, how often must it be proved not to exist, before you are content to part with it? But, to say no more of this (though by all the laws of disputation I may justly blame you for so frequently changing the signification of the principal term)—I would fain know what you mean by affirming that matter is an occasion, having already denied it to be a cause. And, when you have shewn in what sense you understand *occasion*, pray, in the next place, be pleased to shew me what reason induceth you to believe there is such an occasion of our ideas?

Hyl. As to the first point: by *occasion* I mean an inactive

[1] While thus arguing against the need for independent matter, as an instrument needed by God, Berkeley fails to explain how dependent matter can be a medium of intercourse between persons. It must be more than a subjective dream, however well ordered, if it is available for this purpose. Unless the visible and audible ideas or phenomena presented to me are actually seen and heard by other men, how can they be instrumental in intercommunication?

[2] Cf. *Principles*, sect. 68–79.

unthinking being, at the presence whereof God excites ideas in our minds.

Phil. And what may be the nature of that inactive unthinking being?

Hyl. I know nothing of its nature.

Phil. Proceed then to the second point, and assign some reason why we should allow an existence to this inactive, unthinking, unknown thing.

Hyl. When we see ideas produced in our minds, after an orderly and constant manner, it is natural to think they have some fixed and regular occasions, at the presence of which they are excited.

Phil. You acknowledge then God alone to be the cause of our ideas, and that He causes them at the presence of those occasions.

Hyl. That is my opinion.

Phil. Those things which you say are present to God, without doubt He perceives.

Hyl. Certainly; otherwise they could not be to Him an occasion of acting.

Phil. Not to insist now on your making sense of this hypothesis, or answering all the puzzling questions and difficulties it is liable to: I only ask whether the order and regularity observable in the series of our ideas, or the course of nature, be not sufficiently accounted for by the wisdom and power of God; and whether it doth not derogate from those attributes, to suppose He is influenced, directed, or put in mind, when and what He is to act, by an unthinking substance? And, lastly, whether, in case I granted all you contend for, it would make anything to your purpose; it not being easy to conceive how the external or absolute existence of an unthinking substance, distinct from its being perceived, can be inferred from my allowing that there are certain things perceived by the mind of God, which are to Him the occasion of producing ideas in us?

Hyl. I am perfectly at a loss what to think, this notion of *occasion* seeming now altogether as groundless as the rest.

Phil. Do you not at length perceive that in all these different acceptations of *Matter*, you have been only supposing you know not what, for no manner of reason, and to no kind of use?

Hyl. I freely own myself less fond of my notions since they have been so accurately examined. But still, methinks, I have some confused perception that there is such a thing as *Matter*.

Phil. Either you perceive the being of Matter immediately or mediately. If immediately, pray inform me by which of the senses you perceive it. If mediately, let me know by what reasoning it is inferred from those things which you perceive immediately. So much for the perception. Then for the Matter itself, I ask whether it is object, *substratum*, cause, instrument, or occasion? You have already pleaded for each of these, shifting your notions, and making Matter to appear sometimes in one shape, then in another. And what you have offered hath been disapproved and rejected by yourself. If you have anything new to advance I would gladly hear it.

Hyl. I think I have already offered all I had to say on those heads. I am at a loss what more to urge.

Phil. And yet you are loath to part with your old prejudice. But, to make you quit it more easily, I desire that, beside what has been hitherto suggested, you will farther consider whether, upon supposition that Matter exists, you can possibly conceive how you should be affected by it. Or, supposing it did not exist, whether it be not evident you might for all that be affected with the same ideas you now are, and consequently have the very same reasons to believe its existence that you now can have[1].

Hyl. I acknowledge it is possible we might perceive all things just as we do now, though there was no Matter in the world; neither can I conceive, if there be Matter, how it should produce any idea in our minds. And, I do farther grant you have entirely satisfied me that it is impossible there should be such a thing as Matter in any of the foregoing acceptations. But still I cannot help supposing that there is *Matter* in some sense or other. *What that is* I do not indeed pretend to determine.

Phil. I do not expect you should define exactly the nature of that unknown being. Only be pleased to tell me whether it is a Substance; and if so, whether you can

[1] Cf. *Principles*, sect. 20.

suppose a Substance without accidents; or, in case you suppose it to have accidents or qualities, I desire you will let me know what those qualities are, at least what is meant by Matter's supporting them?

Hyl. We have already argued on those points. I have no more to say to them. But, to prevent any farther questions, let me tell you I at present understand by *Matter* neither substance nor accident, thinking nor extended being, neither cause, instrument, nor occasion, but Something entirely unknown, distinct from all these [1].

Phil. It seems then you include in your present notion of Matter nothing but the general abstract idea of *entity*.

Hyl. Nothing else; save only that I superadd to this general idea the negation of all those particular things, qualities, or ideas, that I perceive, imagine, or in anywise apprehend.

Phil. Pray where do you suppose this unknown Matter to exist?

Hyl. Oh Philonous! now you think you have entangled me; for, if I say it exists in place, then you will infer that it exists in the mind, since it is agreed that place or extension exists only in the mind. But I am not ashamed to own my ignorance. I know not where it exists; only I am sure it exists not in place. There is a negative answer for you. And you must expect no other to all the questions you put for the future about Matter.

Phil. Since you will not tell me where it exists, be pleased to inform me after what manner you suppose it to exist, or what you mean by its *existence*?

Hyl. It neither thinks nor acts, neither perceives nor is perceived.

Phil. But what is there positive in your abstracted notion of its existence?

Hyl. Upon a nice observation, I do not find I have any positive notion or meaning at all. I tell you again, I am not ashamed to own my ignorance. I know not what is meant by its *existence*, or how it exists.

Phil. Continue, good Hylas, to act the same ingenuous part, and tell me sincerely whether you can frame a distinct idea of Entity in general, prescinded from and exclusive of

[1] Cf. *Principles*, sect. 80, 81.

all thinking and corporeal beings[1], all particular things whatsoever.

Hyl. Hold, let me think a little——I profess, Philonous, I do not find that I can. At first glance, methought I had some dilute and airy notion of Pure Entity in abstract; but, upon closer attention, it hath quite vanished out of sight. The more I think on it, the more am I confirmed in my prudent resolution of giving none but negative answers, and not pretending to the least degree of any positive knowledge or conception of Matter, its *where*, its *how*, its *entity*, or anything belonging to it.

Phil. When, therefore, you speak of the existence of Matter, you have not any notion in your mind?

Hyl. None at all.

Phil. Pray tell me if the case stands not thus:—At first, from a belief of material substance, you would have it that the immediate objects existed without the mind; then that they are archetypes; then causes; next instruments; then occasions: lastly, *something in general*, which being interpreted proves *nothing*. So Matter comes to nothing. What think you, Hylas, is not this a fair summary of your whole proceeding?

Hyl. Be that as it will, yet I still insist upon it, that *our* not being able to conceive a thing is no argument against its existence.

Phil. That from a cause, effect, operation, sign, or other circumstance, there may reasonably be inferred the existence of a thing not immediately perceived; and that it were absurd for any man to argue against the existence of that thing, from his having no direct and positive notion of it, I freely own. But, where there is nothing of all this; where neither reason nor revelation induces us to believe the existence of a thing; where we have not even a relative notion of it; where an abstraction is made from perceiving and being perceived, from Spirit and idea: lastly, where there is not so much as the most inadequate or faint idea pretended to—I will not indeed thence conclude against the reality of any notion, or existence of anything; but my inference shall be, that you mean nothing at all; that you employ words to no manner of purpose, without

[1] i. e. all Spirits and their dependent ideas or phenomena.

any design or signification whatsoever. And I leave it to you to consider how mere jargon should be treated.

Hyl. To deal frankly with you, Philonous, your arguments seem in themselves unanswerable; but they have not so great an effect on me as to produce that entire conviction, that hearty acquiescence, which attends demonstration [1]. I find myself still relapsing into an obscure surmise of I know not what, *matter*.

Phil. But, are you not sensible, Hylas, that two things must concur to take away all scruple, and work a plenary assent in the mind? Let a visible object be set in never so clear a light, yet, if there is any imperfection in the sight, or if the eye is not directed towards it, it will not be distinctly seen. And though a demonstration be never so well grounded and fairly proposed, yet, if there is withal a stain of prejudice, or a wrong bias on the understanding, can it be expected on a sudden to perceive clearly, and adhere firmly to the truth? No; there is need of time and pains: the attention must be awakened and detained by a frequent repetition of the same thing placed oft in the same, oft in different lights. I have said it already, and find I must still repeat and inculcate, that it is an unaccountable licence you take, in pretending to maintain you know not what, for you know not what reason, to you know not what purpose. Can this be paralleled in any art or science, any sect or profession of men? Or is there anything so barefacedly groundless and unreasonable to be met with even in the lowest of common conversation? But, perhaps you will still say, Matter may exist; though at the same time you neither know *what is meant* by *Matter*, or by its *existence*. This indeed is surprising, and the more so because it is altogether voluntary [2 and of your own

[1] This, according to Hume (who takes for granted that Berkeley's reasonings can produce no conviction), is the natural effect of Berkeley's philosophy.—'Most of the writings of that very ingenious author (Berkeley) form the best lessons of scepticism which are to be found either among the ancient or modern philosophers, Bayle not excepted. . . . That all his arguments, though otherwise intended, are, in reality, merely sceptical, appear from this—*that they admit of no answer, and produce no conviction*. Their only effect is to cause that momentary amazement and irresolution and confusion, which is the result of scepticism.' (Hume's *Essays*, vol. II. Note N, p. 554.)

[2] Omitted in last edition.

head], you not being led to it by any one reason; for I challenge you to shew me that thing in nature which needs Matter to explain or account for it.

Hyl. The *reality* of things cannot be maintained without supposing the existence of Matter. And is not this, think you, a good reason why I should be earnest in its defence?

Phil. The reality of things! What things? sensible or intelligible?

Hyl. Sensible things.

Phil. My glove for example?

Hyl. That, or any other thing perceived by the senses.

Phil. But to fix on some particular thing. Is it not a sufficient evidence to me of the existence of this *glove*, that I see it, and feel it, and wear it? Or, if this will not do, how is it possible I should be assured of the reality of this thing, which I actually see in this place, by supposing that some unknown thing, which I never did or can see, exists after an unknown manner, in an unknown place, or in no place at all? How can the supposed reality of that which is intangible be a proof that anything tangible really exists? Or, of that which is invisible, that any visible thing, or, in general of anything which is imperceptible, that a perceptible exists? Do but explain this and I shall think nothing too hard for you.

Hyl. Upon the whole, I am content to own the existence of Matter is highly improbable; but the direct and absolute impossibility of it does not appear to me.

Phil. But granting Matter to be possible, yet, upon that account merely, it can have no more claim to existence than a golden mountain, or a centaur.

Hyl. I acknowledge it; but still you do not deny it is possible; and that which is possible, for aught you know, may actually exist.

Phil. I deny it to be possible; and have, if I mistake not, evidently proved, from your own concessions, that it is not. In the common sense of the word *Matter*, is there any more implied than an extended, solid, figured, moveable substance, existing without the mind? And have not you acknowledged, over and over, that you have seen evident reason for denying the possibility of such a substance?

Hyl. True, but that is only one sense of the term *Matter*.

Phil. But is it not the only proper genuine received sense? And, if Matter, in such a sense, be proved impossible, may it not be thought with good grounds absolutely impossible? Else how could anything be proved impossible? Or, indeed, how could there be any proof at all one way or other, to a man who takes the liberty to unsettle and change the common signification of words?

Hyl. I thought philosophers might be allowed to speak more accurately than the vulgar, and were not always confined to the common acceptation of a term.

Phil. But this now mentioned is the common received sense among philosophers themselves. But, not to insist on that, have you not been allowed to take Matter in what sense you pleased? And have you not used this privilege in the utmost extent; sometimes entirely changing, at others leaving out, or putting into the definition of it whatever, for the present, best served your design, contrary to all the known rules of reason and logic? And hath not this shifting, unfair method of yours spun out our dispute to an unnecessary length; Matter having been particularly examined, and by your own confession refuted in each of those senses? And can any more be required to prove the absolute impossibility of a thing, than the proving it impossible in every particular sense that either you or any one else understands it in?

Hyl. But I am not so thoroughly satisfied that you have proved the impossibility of Matter, in the last most obscure abstracted and indefinite sense.

Phil. When is a thing shewn to be impossible?

Hyl. When a repugnancy is demonstrated between the ideas comprehended in its definition.

Phil. But where there are no ideas, there no repugnancy can be demonstrated between ideas?

Hyl. I agree with you.

Phil. Now, in that which you call the obscure indefinite sense of the word *Matter*, it is plain, by your own confession, there was included no idea at all, no sense except an unknown sense; which is the same thing as none. You are not, therefore, to expect I should prove a repugnancy between ideas, where there are no ideas; or the impossibility of Matter taken in an *unknown* sense, that is, no sense at all. My business was only to shew you meant

nothing; and this you were brought to own. So that, in all your various senses, you have been shewed either to mean nothing at all, or, if anything, an absurdity. And if this be not sufficient to prove the impossibility of a thing, I desire you will let me know what is.

Hyl. I acknowledge you have proved that Matter is impossible; nor do I see what more can be said in defence of it. But, at the same time that I give up this, I suspect all my other notions. For surely none could be more seemingly evident than this once was: and yet it now seems as false and absurd as ever it did true before. But I think we have discussed the point sufficiently for the present. The remaining part of the day I would willingly spend in running over in my thoughts the several heads of this morning's conversation, and to-morrow shall be glad to meet you here again about the same time.

Phil. I will not fail to attend you.

THE THIRD DIALOGUE

Philonous. [1] Tell me, Hylas, what are the fruits of yesterday's meditation? Has it confirmed you in the same mind you were in at parting? or have you since seen cause to change your opinion?

Hylas. Truly my opinion is that all our opinions are alike vain and uncertain. What we approve to-day, we condemn to-morrow. We keep a stir about knowledge, and spend our lives in the pursuit of it, when, alas! we know nothing all the while: nor do I think it possible for us ever to know anything in this life. Our faculties are too narrow and too few. Nature certainly never intended us for speculation.

Phil. What! Say you we can know nothing, Hylas?

Hyl. There is not that single thing in the world whereof we can know the real nature, or what it is in itself.

Phil. Will you tell me I do not really know what fire or water is?

Hyl. You may indeed know that fire appears hot, and water fluid; but this is no more than knowing what sensations are produced in your own mind, upon the application of fire and water to your organs of sense. Their internal constitution, their true and real nature, you are utterly in the dark as to *that*.

Phil. Do I not know this to be a real stone that I stand on, and that which I see before my eyes to be a real tree?

Hyl. Know? No, it is impossible you or any man alive should know it. All you know is, that you have such a certain idea or appearance in your own mind. But what is this to the real tree or stone? I tell you that colour,

[1] 'Tell me, Hylas,'—'So Hylas'—in first and second editions.

figure, and hardness, which you perceive, are not the real natures of those things, or in the least like them. The same may be said of all other real things, or corporeal substances, which compose the world. They have none of them anything of themselves, like those sensible qualities by us perceived. We should not therefore pretend to affirm or know anything of them, as they are in their own nature.

Phil. But surely, Hylas, I can distinguish gold, for example, from iron: and how could this be, if I knew not what either truly was?

Hyl. Believe me, Philonous, you can only distinguish between your own ideas. That yellowness, that weight, and other sensible qualities, think you they are really in the gold? They are only relative to the senses, and have no absolute existence in nature. And in pretending to distinguish the species of real things, by the appearances in your mind, you may perhaps act as wisely as he that should conclude two men were of a different species, because their clothes were not of the same colour.

Phil. It seems, then, we are altogether put off with the appearances of things, and those false ones too. The very meat I eat, and the cloth I wear, have nothing in them like what I see and feel.

Hyl. Even so.

Phil. But is it not strange the whole world should be thus imposed on, and so foolish as to believe their senses? And yet I know not how it is, but men eat, and drink, and sleep, and perform all the offices of life, as comfortably and conveniently as if they really knew the things they are conversant about.

Hyl. They do so: but you know ordinary practice does not require a nicety of speculative knowledge. Hence the vulgar retain their mistakes, and for all that make a shift to bustle through the affairs of life. But philosophers know better things.

Phil. You mean, they *know* that they *know nothing*.

Hyl. That is the very top and perfection of human knowledge.

Phil. But are you all this while in earnest, Hylas; and are you seriously persuaded that you know nothing real in the world? Suppose you are going to write, would you

not call for pen, ink, and paper, like another man; and do you not know what it is you call for?

Hyl. How often must I tell you, that I know not the real nature of any one thing in the universe? I may indeed upon occasion make use of pen, ink, and paper. But what any one of them is in its own true nature, I declare positively I know not. And the same is true with regard to every other corporeal thing. And, what is more, we are not only ignorant of the true and real nature of things, but even of their existence. It cannot be denied that we perceive such certain appearances or ideas; but it cannot be concluded from thence that bodies really exist. Nay, now I think on it, I must, agreeably to my former concessions, farther declare that it is impossible any *real* corporeal thing should exist in nature.

Phil. You amaze me. Was ever anything more wild and extravagant than the notions you now maintain: and is it not evident you are led into all these extravagances by the belief of *material substance*? This makes you dream of those unknown natures[1] in everything. It is this occasions your distinguishing between the reality and sensible appearances of things. It is to this you are indebted for being ignorant of what everybody else knows perfectly well. Nor is this all: you are not only ignorant of the true nature of everything, but you know not whether anything really exists, or whether there are any true natures at all; forasmuch as you attribute to your material beings an absolute or external existence, wherein you suppose their reality consists. And, as you are forced in the end to acknowledge such an existence means either a direct repugnancy, or nothing at all, it follows that you are obliged to pull down your own hypothesis of material Substance, and positively to deny the real existence of any part of the universe. And so you are plunged into the deepest and most deplorable scepticism that ever man was[2]. Tell me, Hylas, is it not as I say?

[1] Variously called *noumena*, 'things-in-themselves,' absolute substances, &c. — which Berkeley's philosophy banishes, on the ground of their unintelligibility, and thus annihilates all further questions concerning them. Questions about existence are thus confined within the concrete or realising experiences of living spirits.

[2] Berkeley claims that his doctrine supersedes scepticism, and excludes

Hyl. I agree with you. *Material substance* was no more than an hypothesis; and a false and groundless one too. I will no longer spend my breath in defence of it. But whatever hypothesis you advance, or whatsoever scheme of things you introduce in its stead, I doubt not it will appear every whit as false: let me but be allowed to question you upon it. That is, suffer me to serve you in your own kind, and I warrant it shall conduct you through as many perplexities and contradictions, to the very same state of scepticism that I myself am in at present.

Phil. I assure you, Hylas, I do not pretend to frame any hypothesis at all[1]. I am of a vulgar cast, simple enough to believe my senses, and leave things as I find them. To be plain, it is my opinion that the real things are those very things I see, and feel, and perceive[2] by my senses. These I know; and, finding they answer all the necessities and purposes of life, have no reason to be solicitous about any other unknown beings. A piece of sensible bread, for instance, would stay my stomach better than ten thousand times as much of that insensible, unintelligible, real bread you speak of. It is likewise my opinion that colours and other sensible qualities are on the objects. I cannot for my life help thinking that snow is white, and fire hot. You indeed, who by *snow* and *fire* mean certain external, unperceived, unperceiving substances, are in the right to deny whiteness or heat to be affections inherent in *them*. But I, who understand by those words the things I see and feel, am obliged to think like other folks. And, as I am no sceptic with regard to the nature of things, so neither am I as to their existence. That a thing should be really perceived by my senses[3], and at

the possibility of fallacy in sense, in excluding an ultimately representative perception of Matter. He also assumes the reasonableness of faith in the reality and constancy of natural law. When we see an orange, the visual sense guarantees only colour. The other phenomena, which we associate with this colour —the other 'qualities' of the orange—are, when we only *see* the orange, matter of faith. We believe them to be realisable.

[1] He accepts the common belief on which interpretation of sense symbols proceeds — that sensible phenomena are evolved in rational order, under laws that are independent of, and in that respect external to, the individual percipient.

[2] Mediately as well as immediately.

[3] We can hardly be said to have an *immediate* sense-perception of an individual 'thing'—meaning by 'thing' a congeries of sense-ideas

the same time not really exist, is to me a plain contradiction; since I cannot prescind or abstract, even in thought, the existence of a sensible thing from its being perceived. Wood, stones, fire, water, flesh, iron, and the like things, which I name and discourse of, are things that I know. And I should not have known them but that I perceived them by my senses; and things perceived by the senses are immediately perceived; and things immediately perceived are ideas; and ideas cannot exist without the mind; their existence therefore consists in being perceived; when, therefore, they are actually perceived there can be no doubt of their existence. Away then with all that scepticism, all those ridiculous philosophical doubts. What a jest is it for a philosopher to question the existence of sensible things, till he hath it proved to him from the veracity of God[1]; or to pretend our knowledge in this point falls short of intuition or demonstration[2]! I might as well doubt of my own being, as of the being of those things I actually see and feel.

Hyl. Not so fast, Philonous: you say you cannot conceive how sensible things should exist without the mind. Do you not?

Phil. I do.

Hyl. Supposing you were annihilated, cannot you conceive it possible that things perceivable by sense may still exist[3]?

Phil. I can; but then it must be in another mind. When I deny sensible things an existence out of the mind, I do not mean my mind in particular, but all minds. Now, it is plain they have an existence exterior to my mind; since I find them by experience to be independent of it[4]. There

or phenomena, presented to different senses. We immediately perceive some of them, and believe in the others, which those suggest. See the last three notes.

[1] He probably refers to Descartes, who *argues* for the trustworthiness of our faculties from the veracity of God; thus apparently arguing in a circle, seeing that the existence of God is manifested to us only through our suspected faculties. But is not confidence in the trustworthiness of the Universal Power at the heart of the universe, the fundamental *presupposition* of all human experience, and God thus the basis and end of philosophy and of experience?

[2] As Locke does. See *Essay*, Bk. IV. ch. 11.

[3] Cf. *Principles of Human Knowledge*, sect. 45–48.

[4] And to be thus external to individual minds.

is therefore some other Mind wherein they exist, during the intervals between the times of my perceiving them: as likewise they did before my birth, and would do after my supposed annihilation. And, as the same is true with regard to all other finite created spirits, it necessarily follows there is an *omnipresent eternal Mind*, which knows and comprehends all things, and exhibits them to our view in such a manner, and according to such rules, as He Himself hath ordained, and are by us termed the *laws of nature*[1].

Hyl. Answer me, Philonous. Are all our ideas perfectly inert beings? Or have they any agency included in them?

Phil. They are altogether passive and inert[2].

Hyl. And is not God an agent, a being purely active?

Phil. I acknowledge it.

Hyl. No idea therefore can be like unto, or represent the nature of God?

Phil. It cannot.

Hyl. Since therefore you have no *idea* of the mind of God, how can you conceive it possible that things should exist in His mind? Or, if you can conceive the mind of God, without having an idea of it, why may not I be allowed to conceive the existence of Matter, notwithstanding I have no idea of it?

Phil. As to your first question: I own I have properly no *idea*, either of God or any other spirit; for these being active, cannot be represented by things perfectly inert, as our ideas are. I do nevertheless know that I, who am a spirit or thinking substance, exist as certainly as I know my ideas exist[3]. Farther, I know what I mean by the terms *I* and *myself*; and I know this immediately or in-

[1] It is here that Berkeley differs, for example, from Hume and Comte and J. S. Mill; who accept sense-given phenomena, and assume the constancy of their orderly reappearances, *as a matter of fact*, while they confess total ignorance of the *cause* of natural order. (Thus ignorant, why do they assume reason or order in nature?) The ground of sensible things, which Berkeley refers to Divine Power, Mill expresses by the term '*permanent possibility* of sensation.' (See his *Examination of Hamilton*, ch. 11.) Our belief in the continued existence of a sensible thing *in our absence* merely means, with him, our conviction, derived from custom, that we should perceive it under inexplicable conditions which determine its appearance.

[2] Cf. *Principles*, sect. 25, 26.

[3] Cf. Ibid., sect. 2, 27, 135–142.

tuitively, though I do not perceive it as I perceive a triangle, a colour, or a sound. The Mind, Spirit, or Soul is that indivisible unextended thing which thinks, acts, and perceives. I say *indivisible*, because unextended; and *unextended*, because extended, figured, moveable things are ideas; and that which perceives ideas, which thinks and wills, is plainly itself no idea, nor like an idea. Ideas are things inactive, and perceived. And Spirits a sort of beings altogether different from them. I do not therefore say my soul is an idea, or like an idea. However, taking the word *idea* in a large sense, my soul may be said to furnish me with an idea, that is, an image or likeness of God—though indeed extremely inadequate. For, all the notion I have of God is obtained by reflecting on my own soul, heightening its powers, and removing its imperfections. I have, therefore, though not an inactive idea, yet in *myself* some sort of an active thinking image of the Deity. And, though I perceive Him not by sense, yet I have a notion of Him, or know Him by reflexion and reasoning. My own mind and my own ideas I have an immediate knowledge of; and, by the help of these, do mediately apprehend the possibility of the existence of other spirits and ideas[1]. Farther, from my own being, and from the dependency I find in myself and my ideas, I do, by an act of reason[2], necessarily infer the existence of a God, and of all created things in the mind of God. So much for your first question. For the second: I suppose by this time you can answer it yourself. For you neither perceive Matter[3] objectively, as you do an inactive being or idea; nor know it, as you do yourself, by a reflex act[4]; neither do

[1] Inasmuch as I am conscious of *myself*, I can gather, through the sense symbolism, the real existence of other minds, external to my own. For I cannot, of course, enter into the very consciousness of another person.

[2] 'reason,' i. e. reasoning or necessary inference—founded here on our sense of personal dependence; not merely on our faith in sense symbolism and the interpretability of the sensible world. Our belief in the existence of finite minds, external to our own, is, with Berkeley, an application of this faith.

[3] 'Matter,' i. e. Matter as abstract substance. Cf. *Principles*, sect. 135–138.

[4] Does this imply that with Berkeley, *self*, as distinguished from the *phenomena* of which the material world consists, is not a necessary presupposition of experience? He says in many places—I am *conscious* of 'my own being,' and that my mind is myself. Cf. *Principles*, sect. 2.

you mediately apprehend it by similitude of the one or the other[1]; nor yet collect it by reasoning from that which you know immediately[2]. All which makes the case of *Matter* widely different from that of the *Deity*.

[[3]*Hyl.* You say your own soul supplies you with some sort of an idea or image of God. But, at the same time, you acknowledge you have, properly speaking, no *idea* of your own soul. You even affirm that spirits are a sort of beings altogether different from ideas. Consequently that no idea can be like a spirit. We have therefore no idea of any spirit. You admit nevertheless that there is spiritual Substance, although you have no idea of it; while you deny there can be such a thing as material Substance, because you have no notion or idea of it. Is this fair dealing? To act consistently, you must either admit Matter or reject Spirit. What say you to this?

Phil. I say, in the first place, that I do not deny the existence of material substance, merely because I have no notion of it, but because the notion of it is inconsistent; or, in other words, because it is repugnant that there should be a notion of it. Many things, for aught I know, may exist, whereof neither I nor any other man hath or can have any idea or notion whatsoever. But then those things must be possible, that is, nothing inconsistent must be included in their definition. I say, secondly, that, although we believe things to exist which we do not perceive, yet we may not believe that any particular thing exists, without some reason for such belief: but I have no reason for believing the existence of Matter. I have no immediate intuition thereof: neither can I immediately from my sensations, ideas, notions, actions, or passions, infer an unthinking, unperceiving, inactive Substance—either by probable deduction, or necessary consequence. Whereas the being of my Self, that is, my own soul, mind, or thinking principle, I evidently know by reflexion[4].

[1] Cf. *Principles*, sect. 8.

[2] Cf. Ibid., sect. 20.

[3] This important passage, printed within brackets, is not found in the first and second editions of the *Dialogues*. It is, by anticipation, Berkeley's answer to Hume's application of the objections to the reality of abstract or unperceived Matter, to the reality of the Ego or Self, of which we are aware through memory, as identical amid the changes of its successive states.

[4] See note [4] on preceding page.

You will forgive me if I repeat the same things in answer to the same objections. In the very notion or definition of *material Substance*, there is included a manifest repugnance and inconsistency. But this cannot be said of the notion of Spirit. That ideas should exist in what doth not perceive, or be produced by what doth not act, is repugnant. But, it is no repugnancy to say that a perceiving thing should be the subject of ideas, or an active thing the cause of them. It is granted we have neither an immediate evidence nor a demonstrative knowledge of the existence of other finite spirits; but it will not thence follow that such spirits are on a foot with material substances: if to suppose the one be inconsistent, and it be not inconsistent to suppose the other; if the one can be inferred by no argument, and there is a probability for the other; if we see signs and effects indicating distinct finite agents like ourselves, and see no sign or symptom whatever that leads to a rational belief of Matter. I say, lastly, that I have a notion of Spirit, though I have not, strictly speaking, an idea of it [1]. I do not perceive it as an idea, or by means of an idea, but know it by reflexion.

Hyl. Notwithstanding all you have said, to me it seems that, according to your own way of thinking, and in consequence of your own principles, it should follow that *you* are only a system of floating ideas, without any substance to support them. Words are not to be used without a meaning. And, as there is no more meaning in *spiritual Substance* than in *material Substance*, the one is to be exploded as well as the other.

Phil. How often must I repeat, that I know or am conscious of my own being; and that *I myself* am not my ideas, but somewhat else [2], a thinking, active principle that perceives, knows, wills, and operates about ideas. I know that I, one and the same self, perceive both colours and sounds: that a colour cannot perceive a sound, nor a sound a colour: that I am therefore one individual principle, distinct from colour and sound; and, for the same reason, from all other sensible things and inert ideas.

[1] Cf. *Principles*, sect. 142.

[2] Cf. Ibid., sect. 2. Does he assume that he exists when he is not conscious of ideas—sensible or other? Or, does he deny that he is ever unconscious?

But, I am not in like manner conscious either of the existence or essence of Matter[1]. On the contrary, I know that nothing inconsistent can exist, and that the existence of Matter implies an inconsistency. Farther, I know what I mean when I affirm that there is a spiritual substance or support of ideas, that is, that a spirit knows and perceives ideas. But, I do not know what is meant when it is said that an unperceiving substance hath inherent in it and supports either ideas or the archetypes of ideas. There is therefore upon the whole no parity of case between Spirit and Matter.]

Hyl. I own myself satisfied in this point. But, do you in earnest think the real existence of sensible things consists in their being actually perceived? If so; how comes it that all mankind distinguish between them? Ask the first man you meet, and he shall tell you, *to be perceived* is one thing, and *to exist* is another.

Phil. I am content, Hylas, to appeal to the common sense of the world for the truth of my notion. Ask the gardener why he thinks yonder cherry-tree exists in the garden, and he shall tell you, because he sees and feels it; in a word, because he perceives it by his senses. Ask him why he thinks an orange-tree not to be there, and he shall tell you, because he does not perceive it. What he perceives by sense, that he terms a real being, and saith it *is* or *exists*; but, that which is not perceivable, the same, he saith, hath no being.

Hyl. Yes, Philonous, I grant the existence of a sensible thing consists in being perceivable, but not in being actually perceived.

Phil. And what is perceivable but an idea? And can an idea exist without being actually perceived? These are points long since agreed between us.

Hyl. But, be your opinion never so true, yet surely you will not deny it is shocking, and contrary to the common sense of men[2]. Ask the fellow whether yonder tree hath an existence out of his mind: what answer think you he would make?

[1] That is of matter supposed to exist independently of any mind. Berkeley speaks here of a *consciousness* of matter. Does he mean consciousness of belief in abstract material Substance?

[2] Cf. *Principles*, sect. 54–57.

Phil. The same that I should myself, to wit, that it doth exist out of his mind. But then to a Christian it cannot surely be shocking to say, the real tree, existing without his mind, is truly known and comprehended by (that is *exists in*) the infinite mind of God. Probably he may not at first glance be aware of the direct and immediate proof there is of this; inasmuch as the very being of a tree, or any other sensible thing, implies a mind wherein it is. But the point itself he cannot deny. The question between the Materialists and me is not, whether things have a *real* existence out of the mind of this or that person [1], but, whether they have an *absolute* existence, distinct from being perceived by God, and exterior to *all* minds [2]. This indeed some heathens and philosophers have affirmed, but whoever entertains notions of the Deity suitable to the Holy Scriptures will be of another opinion.

Hyl. But, according to your notions, what difference is there between real things, and chimeras formed by the imagination, or the visions of a dream—since they are all equally in the mind [3]?

Phil. The ideas formed by the imagination are faint and indistinct; they have, besides, an entire dependence on the will. But the ideas perceived by sense, that is, real things, are more vivid and clear; and, being imprinted on the mind by a spirit distinct from us, have not the like dependence on our will. There is therefore no danger of confounding these with the foregoing: and there is as little of confounding them with the visions of a dream, which are dim, irregular, and confused. And, though they should happen to be never so lively and natural, yet, by their not being connected, and of a piece with the preceding and subsequent transactions of our lives, they might easily be distinguished from realities. In short, by whatever method you distinguish *things* from *chimeras* on your scheme, the same, it is evident, will hold also upon mine. For, it must be, I presume, by some perceived difference; and I am not for depriving you of any one thing that you perceive.

Hyl. But still, Philonous, you hold, there is nothing in

[1] Which he does not doubt.

[2] This sentence expresses the whole question between Berkeley and his antagonists.

[3] Cf. *Principles*, sect. 29–41.

the world but spirits and ideas. And this, you must needs acknowledge, sounds very oddly.

Phil. I own the word *idea*, not being commonly used for *thing*, sounds something out of the way. My reason for using it was, because a necessary relation to the mind is understood to be implied by that term; and it is now commonly used by philosophers to denote the immediate objects of the understanding. But, however oddly the proposition may sound in words, yet it includes nothing so very strange or shocking in its sense; which in effect amounts to no more than this, to wit, that there are only things perceiving, and things perceived; or that every unthinking being is necessarily, and from the very nature of its existence, perceived by some mind; if not by a finite created mind, yet certainly by the infinite mind of God, in whom 'we live, and move, and have our being.' Is this as strange as to say, the sensible qualities are not on the objects: or that we cannot be sure of the existence of things, or know anything of their real natures—though we both see and feel them, and perceive them by all our senses?

Hyl. And, in consequence of this, must we not think there are no such things as physical or corporeal causes; but that a Spirit is the immediate cause of all the phenomena in nature? Can there be anything more extravagant than this?

Phil. Yes, it is infinitely more extravagant to say—a thing which is inert operates on the mind, and which is unperceiving is the cause of our perceptions, [[1] without any regard either to consistency, or the old known axiom, *Nothing can give to another that which it hath not itself*]. Besides, that which to you, I know not for what reason, seems so extravagant is no more than the Holy Scriptures assert in a hundred places. In them God is represented as the sole and immediate Author of all those effects which some heathens and philosophers are wont to ascribe to Nature, Matter, Fate, or the like unthinking principle. This is so much the constant language of Scripture that it were needless to confirm it by citations.

Hyl. You are not aware, Philonous, that, in making God

[1] The words within brackets are omitted in the third edition.

the immediate Author of all the motions in nature, you make Him the Author of murder, sacrilege, adultery, and the like heinous sins.

Phil. In answer to that, I observe, first, that the imputation of guilt is the same, whether a person commits an action with or without an instrument. In case therefore you suppose God to act by the mediation of an instrument, or occasion, called *Matter*, you as truly make Him the author of sin as I, who think Him the immediate agent in all those operations vulgarly ascribed to Nature. I farther observe that sin or moral turpitude doth not consist in the outward physical action or motion, but in the internal deviation of the will from the laws of reason and religion. This is plain, in that the killing an enemy in a battle, or putting a criminal legally to death, is not thought sinful; though the outward act be the very same with that in the case of murder. Since, therefore, sin doth not consist in the physical action, the making God an immediate cause of all such actions is not making Him the Author of sin. Lastly, I have nowhere said that God is the only agent who produces all the motions in bodies. It is true I have denied there are any other agents besides spirits; but this is very consistent with allowing to thinking rational beings, in the production of motions, the use of limited powers, ultimately indeed derived from God, but immediately under the direction of their own wills, which is sufficient to entitle them to all the guilt of their actions[1].

Hyl. But the denying Matter, Philonous, or corporeal Substance; there is the point. You can never persuade me that this is not repugnant to the universal sense of mankind. Were our dispute to be determined by most voices, I am confident you would give up the point, without gathering the votes.

Phil. I wish both our opinions were fairly stated and submitted to the judgment of men who had plain common sense, without the prejudices of a learned education. Let me be represented as one who trusts his senses, who thinks he knows the things he sees and feels, and enter-

[1] The index pointing to the originative causes in the universe is thus the ethical judgment, which fastens upon the free voluntary agency of *persons*, as absolutely responsible causes, not merely caused causes.

tains no doubts of their existence; and you fairly set forth with all your doubts, your paradoxes, and your scepticism about you, and I shall willingly acquiesce in the determination of any indifferent person. That there is no substance wherein ideas can exist beside spirit is to me evident. And that the objects immediately perceived are ideas, is on all hands agreed[1]. And that sensible qualities are objects immediately perceived no one can deny. It is therefore evident there can be no *substratum* of those qualities but spirit; *in* which they exist, not by way of mode or property, but as a thing perceived in that which perceives it[2]. I deny therefore that there is any unthinking *substratum* of the objects of sense, and *in that acceptation* that there is any material substance. But if by *material substance* is meant only *sensible body*—that which is seen and felt (and the unphilosophical part of the world, I dare say, mean no more)—then I am more certain of matter's existence than you or any other philosopher pretend to be. If there be anything which makes the generality of mankind averse from the notions I espouse: it is a misapprehension that I deny the reality of sensible things. But, as it is you who are guilty of that, and not I, it follows that in truth their aversion is against your notions and not mine. I do therefore assert that I am as certain as of my own being, that there are bodies or corporeal substances (meaning the things I perceive by my senses); and that, granting this, the bulk of mankind will take no thought about, nor think themselves at all concerned in the fate of those unknown natures, and philosophical quiddities, which some men are so fond of.

Hyl. What say you to this? Since, according to you, men judge of the reality of things by their senses, how can a man be mistaken in thinking the moon a plain lucid surface, about a foot in diameter; or a square tower, seen at a distance, round; or an oar, with one end in the water, crooked?

Phil. He is not mistaken with regard to the ideas he actually perceives, but in the inferences he makes from

[1] That only ideas or phenomena are presented to our senses may be assented to by those who nevertheless maintain that intelligent sensuous experience implies more than the sensuous or empirical data.

[2] Cf. *Principles*, sect. 49.

his present perceptions. Thus, in the case of the oar, what he immediately perceives by sight is certainly crooked; and so far he is in the right. But if he thence conclude that upon taking the oar out of the water he shall perceive the same crookedness; or that it would affect his touch as crooked things are wont to do: in that he is mistaken. In like manner, if he shall conclude from what he perceives in one station, that, in case he advances towards the moon or tower, he should still be affected with the like ideas, he is mistaken. But his mistake lies not in what he perceives immediately, and at present, (it being a manifest contradiction to suppose he should err in respect of that) but in the wrong judgment he makes concerning the ideas he apprehends to be connected with those immediately perceived: or, concerning the ideas that, from what he perceives at present, he imagines would be perceived in other circumstances. The case is the same with regard to the Copernican system. We do not here perceive any motion of the earth: but it were erroneous thence to conclude, that, in case we were placed at as great a distance from that as we are now from the other planets, we should not then perceive its motion [1].

Hyl. I understand you; and must needs own you say things plausible enough. But, give me leave to put you in mind of one thing. Pray, Philonous, were you not formerly as positive that Matter existed, as you are now that it does not?

Phil. I was. But here lies the difference. Before, my positiveness was founded, without examination, upon prejudice; but now, after inquiry, upon evidence.

Hyl. After all, it seems our dispute is rather about words than things. We agree in the thing, but differ in the name. That we are affected with ideas *from without* is evident; and it is no less evident that there must be (I will not say archetypes, but) Powers without the mind [2], corresponding to those ideas. And, as these Powers cannot subsist by themselves, there is some subject of them necessarily to be admitted; which I call *Matter*, and you call *Spirit*. This is all the difference.

[1] Cf. *Principles*, sect. 58.

[2] 'without the mind,' i. e. without the mind of each percipient person.

Phil. Pray, Hylas, is that powerful Being, or subject of powers, extended?

Hyl. It hath not extension; but it hath the power to raise in you the idea of extension.

Phil. It is therefore itself unextended?

Hyl. I grant it.

Phil. Is it not also active?

Hyl. Without doubt. Otherwise, how could we attribute powers to it?

Phil. Now let me ask you two questions: *First*, Whether it be agreeable to the usage either of philosophers or others to give the name *Matter* to an unextended active being? And, *Secondly*, Whether it be not ridiculously absurd to misapply names contrary to the common use of language?

Hyl. Well then, let it not be called Matter, since you will have it so, but some *Third Nature* distinct from Matter and Spirit. For what reason is there why you should call it Spirit? Does not the notion of spirit imply that it is thinking, as well as active and unextended?

Phil. My reason is this: because I have a mind to have some notion of meaning in what I say: but I have no notion of any action distinct from volition, neither can I conceive volition to be anywhere but in a spirit: therefore, when I speak of an active being, I am obliged to mean a Spirit. Beside, what can be plainer than that a thing which hath no ideas in itself cannot impart them to me; and, if it hath ideas, surely it must be a Spirit. To make you comprehend the point still more clearly if it be possible. I assert as well as you that, since we are affected from without, we must allow Powers to be without, in a Being distinct from ourselves. So far we are agreed. But then we differ as to the kind of this powerful Being[1]. I will have it to be Spirit, you Matter, or I know not what (I may add too, you know not what) Third Nature. Thus, I prove it to be Spirit. From the effects I see produced, I conclude there are actions; and, because

[1] This is the gist of the whole question. According to the Materialists, sense-presented phenomena are due to unpresented, unperceived, abstract Matter; according to Berkeley, to living Spirit; according to Hume and Agnostics, their origin is unknowable, yet (incoherently) they claim that we *can* interpret them—in physical science.

actions, volitions; and, because there are volitions, there must be a *will*. Again, the things I perceive must have an existence, they or their archetypes, out of *my* mind: but, being ideas, neither they nor their archetypes can exist otherwise than in an understanding; there is therefore an *understanding*. But will and understanding constitute in the strictest sense a mind or spirit. The powerful cause, therefore, of my ideas is in strict propriety of speech a *Spirit*.

Hyl. And now I warrant you think you have made the point very clear, little suspecting that what you advance leads directly to a contradiction. Is it not an absurdity to imagine any imperfection in God?

Phil. Without a doubt.

Hyl. To suffer pain is an imperfection?

Phil. It is.

Hyl. Are we not sometimes affected with pain and uneasiness by some other Being?

Phil. We are.

Hyl. And have you not said that Being is a Spirit, and is not that Spirit God?

Phil. I grant it.

Hyl. But you have asserted that whatever ideas we perceive from without are in the mind which affects us. The ideas, therefore, of pain and uneasiness are in God; or, in other words, God suffers pain: that is to say, there is an imperfection in the Divine nature: which, you acknowledged, was absurd. So you are caught in a plain contradiction[1].

Phil. That God knows or understands all things, and that He knows, among other things, what pain is, even every sort of painful sensation, and what it is for His creatures to suffer pain, I make no question. But, that God, though He knows and sometimes causes painful sensations in us, can Himself suffer pain, I positively deny. We, who are limited and dependent spirits, are liable to impressions of sense, the effects of an external Agent, which, being produced against our wills, are sometimes painful and uneasy. But God, whom no external

[1] A similar objection is urged by Erdmann, in his criticism of Berkeley in the *Grundriss der Geschichte der Philosophie*.

being can affect, who perceives nothing by sense as we do; whose will is absolute and independent, causing all things, and liable to be thwarted or resisted by nothing: it is evident, such a Being as this can suffer nothing, nor be affected with any painful sensation, or indeed any sensation at all. We are chained to a body: that is to say, our perceptions are connected with corporeal motions. By the law of our nature, we are affected upon every alteration in the nervous parts of our sensible body; which sensible body, rightly considered, is nothing but a complexion of such qualities or ideas as have no existence distinct from being perceived by a mind. So that this connexion of sensations with corporeal motions means no more than a correspondence in the order of nature, between two sets of ideas, or things immediately perceivable. But God is a Pure Spirit, disengaged from all such sympathy, or natural ties. No corporeal motions are attended with the sensations of pain or pleasure in His mind. To know everything knowable, is certainly a perfection; but to endure, or suffer, or feel anything by sense, is an imperfection. The former, I say, agrees to God, but not the latter. God knows, or hath ideas; but His ideas are not conveyed to Him by sense, as ours are. Your not distinguishing, where there is so manifest a difference, makes you fancy you see an absurdity where there is none.

Hyl. But, all this while you have not considered that the quantity of Matter has been demonstrated to be proportioned to the gravity of bodies[1]. And what can withstand demonstration?

Phil. Let me see how you demonstrate that point.

Hyl. I lay it down for a principle, that the moments or quantities of motion in bodies are in a direct compounded reason of the velocities and quantities of Matter contained in them. Hence, where the velocities are equal, it follows the moments are directly as the quantity of Matter in each. But it is found by experience that all bodies (bating the small inequalities, arising from the resistance of the air) descend with an equal velocity; the motion therefore of descending bodies, and consequently their gravity, which

[1] Cf. *Principles*, sect. 50; *Siris*, sect. 319.

is the cause or principle of that motion, is proportional to the quantity of Matter; which was to be demonstrated.

Phil. You lay it down as a self-evident principle that the quantity of motion in any body is proportional to the velocity and *Matter* taken together; and this is made use of to prove a proposition from whence the existence of *Matter* is inferred. Pray is not this arguing in a circle?

Hyl. In the premise I only mean that the motion is proportional to the velocity, jointly with the extension and solidity.

Phil. But, allowing this to be true, yet it will not thence follow that gravity is proportional to *Matter*, in your philosophic sense of the word; except you take it for granted that unknown *substratum*, or whatever else you call it, is proportional to those sensible qualities; which to suppose is plainly begging the question. That there is magnitude and solidity, or resistance, perceived by sense, I readily grant; as likewise, that gravity may be proportional to those qualities I will not dispute. But that either these qualities as perceived by us, or the powers producing them, do exist in a *material substratum*; this is what I deny, and you indeed affirm, but, notwithstanding your demonstration, have not yet proved.

Hyl. I shall insist no longer on that point. Do you think, however, you shall persuade me the natural philosophers have been dreaming all this while? Pray what becomes of all their hypotheses and explications of the phenomena, which suppose the existence of Matter[1]?

Phil. What mean you, Hylas, by the *phenomena*?

Hyl. I mean the appearances which I perceive by my senses.

Phil. And the appearances perceived by sense, are they not ideas?

Hyl. I have told you so a hundred times.

Phil. Therefore, to explain the phenomena is, to shew how we come to be affected with ideas, in that manner and[2] order wherein they are imprinted on our senses. Is it not?

Hyl. It is.

[1] Cf. *Principles*, sect. 58.

[2] 'order'—'series,' in first and second editions.

Phil. Now, if you can prove that any philosopher has explained the production of any one idea in our minds by the help of *Matter*[1], I shall for ever acquiesce, and look on all that hath been said against it as nothing; but, if you cannot, it is vain to urge the explication of phenomena. That a Being endowed with knowledge and will should produce or exhibit ideas is easily understood. But that a Being which is utterly destitute of these faculties should be able to produce ideas, or in any sort to affect an intelligence, this I can never understand. This I say, though we had some positive conception of Matter, though we knew its qualities, and could comprehend its existence, would yet be so far from explaining things, that it is itself the most inexplicable thing in the world. And yet, for all this, it will not follow that philosophers have been doing nothing; for, by observing and reasoning upon the connexion of ideas[2], they discover the laws and methods of nature, which is a part of knowledge both useful and entertaining.

Hyl. After all, can it be supposed God would deceive all mankind? Do you imagine He would have induced the whole world to believe the being of Matter, if there was no such thing?

Phil. That every epidemical opinion, arising from prejudice, or passion, or thoughtlessness, may be imputed to God, as the Author of it, I believe you will not affirm. Whatsoever opinion we father on Him, it must be either because He has discovered it to us by supernatural revelation; or because it is so evident to our natural faculties, which were framed and given us by God, that it is impossible we should withhold our assent from it. But where is the revelation? or where is the evidence that extorts the belief of Matter? Nay, how does it appear, that Matter, *taken for something distinct from what we perceive by our senses*, is thought to exist by all mankind; or, indeed, by any except a few philosophers, who do not know what

[1] 'Matter,' i. e. when the reality of 'matter' is supposed to signify what Berkeley argues cannot be; because really meaningless.

[2] 'the connexion of ideas,' i. e. the physical coexistences and sequences, maintained in constant order by Power external to the individual, and which are disclosed in the natural sciences.

they would be at? Your question supposes these points are clear; and, when you have cleared them, I shall think myself obliged to give you another answer. In the meantime, let it suffice that I tell you, I do not suppose God has deceived mankind at all.

Hyl. But the novelty, Philonous, the novelty! There lies the danger. New notions should always be discountenanced; they unsettle men's minds, and nobody knows where they will end.

Phil. Why the rejecting a notion that has no foundation, either in sense, or in reason, or in Divine authority, should be thought to unsettle the belief of such opinions as are grounded on all or any of these, I cannot imagine. That innovations in government and religion are dangerous, and ought to be discountenanced, I freely own. But is there the like reason why they should be discouraged in philosophy? The making anything known which was unknown before is an innovation in knowledge: and, if all such innovations had been forbidden, men would have made a notable progress in the arts and sciences. But it is none of my business to plead for novelties and paradoxes. That the qualities we perceive are not on the objects: that we must not believe our senses: that we know nothing of the real nature of things, and can never be assured even of their existence: that real colours and sounds are nothing but certain unknown figures and motions: that motions are in themselves neither swift nor slow: that there are in bodies absolute extensions, without any particular magnitude or figure: that a thing stupid, thoughtless, and inactive, operates on a spirit: that the least particle of a body contains innumerable extended parts:—these are the novelties, these are the strange notions which shock the genuine uncorrupted judgment of all mankind; and being once admitted, embarrass the mind with endless doubts and difficulties. And it is against these and the like innovations I endeavour to vindicate Common Sense. It is true, in doing this, I may perhaps be obliged to use some *ambages*, and ways of speech not common. But, if my notions are once thoroughly understood, that which is most singular in them will, in effect, be found to amount to no more than this:—that it is absolutely impossible, and a plain contradiction, to suppose

any unthinking Being should exist without being perceived by a Mind. And, if this notion be singular, it is a shame it should be so, at this time of day, and in a Christian country.

Hyl. As for the difficulties other opinions may be liable to, those are out of the question. It is your business to defend your own opinion. Can anything be plainer than that you are for changing all things into ideas? You, I say, who are not ashamed to charge me with *scepticism*. This is so plain, there is no denying it.

Phil. You mistake me. I am not for changing things into ideas, but rather ideas into things [1]; since those immediate objects of perception, which, according to you, are only appearances of things, I take to be the real things themselves [2].

Hyl. Things! You may pretend what you please; but it is certain you leave us nothing but the empty forms of things, the outside only which strikes the senses.

Phil. What you call the empty forms and outside of things seem to me the very things themselves. Nor are they empty or incomplete, otherwise than upon your supposition—that Matter [3] is an essential part of all corporeal things. We both, therefore, agree in this, that we perceive only sensible forms: but herein we differ—you will have them to be empty appearances, I real beings. In short, you do not trust your senses, I do.

Hyl. You say you believe your senses; and seem to applaud yourself that in this you agree with the vulgar. According to you, therefore, the true nature of a thing is discovered by the senses. If so, whence comes that disagreement? Why is not the same figure, and other sensible qualities, perceived all manner of ways? and why should we use a microscope the better to discover the true nature of a body, if it were discoverable to the naked eye?

Phil. Strictly speaking, Hylas, we do not see the same object that we feel [4]; neither is the same object perceived

[1] Cf. *Principles*, sect. 38. Berkeley is not for making things *subjective*, but for recognising ideas or phenomena presented to the senses as *objective*.

[2] They are not mere illusory appearances but are the very things themselves making their appearance, as far as our limited senses allow them to be realised for us.

[3] i. e. abstract Matter.

[4] Cf. *New Theory of Vision*, sect. 49; and *New Theory of Vision Vindicated*, sect. 9, 10, 15, &c.

by the microscope which was by the naked eye[1]. But, in case every variation was thought sufficient to constitute a new kind or individual, the endless number or confusion of names would render language impracticable. Therefore, to avoid this, as well as other inconveniences which are obvious upon a little thought, men combine together several ideas, apprehended by divers senses, or by the same sense at different times, or in different circumstances, but observed, however, to have some connexion in nature, either with respect to co-existence or succession; all which they refer to one name, and consider as one thing. Hence it follows that when I examine, by my other senses, a thing I have seen, it is not in order to understand better the same object which I had perceived by sight, the object of one sense not being perceived by the other senses. And, when I look through a microscope, it is not that I may perceive more clearly what I perceived already with my bare eyes; the object perceived by the glass being quite different from the former. But, in both cases, my aim is only to know what ideas are connected together; and the more a man knows of the connexion of ideas[2], the more he is said to know of the nature of things. What, therefore, if our ideas are variable; what if our senses are not in all circumstances affected with the same appearances? It will not thence follow they are not to be trusted; or that they are inconsistent either with themselves or anything else: except it be with your preconceived notion of (I know not what) one single, unchanged, unperceivable, real Nature, marked by each name. Which prejudice seems to have taken its rise from not rightly understanding the common language of men, speaking of several distinct ideas as united into one thing by the mind. And, indeed, there is cause to suspect several erroneous conceits of the philosophers are owing to the same original: while they began to build their schemes not so much on notions as on words, which were framed by the vulgar, merely for conveniency and dispatch in the common actions of life, without any regard to speculation[3].

[1] Cf. *New Theory of Vision*, sect. 84–86.

[2] 'the connexion of ideas,' i. e. the order providentially maintained in nature.

[3] Cf. *Principles*, Introduction, sect. 23–25.

Hyl. Methinks I apprehend your meaning.

Phil. It is your opinion the ideas we perceive by our senses are not real things, but images or copies of them. Our knowledge, therefore, is no farther real than as our ideas are the true *representations* of those *originals*. But, as these supposed originals are in themselves unknown, it is impossible to know how far our ideas resemble them; or whether they resemble them at all[1]. We cannot, therefore, be sure we have any real knowledge[2]. Farther, as our ideas are perpetually varied, without any change in the supposed real things, it necessarily follows they cannot all be true copies of them: or, if some are and others are not, it is impossible to distinguish the former from the latter. And this plunges us yet deeper in uncertainty[3]. Again, when we consider the point, we cannot conceive how any idea, or anything like an idea, should have an absolute existence out of a mind: nor consequently, according to you, how there should be any real thing in nature[4]. The result of all which is that we are thrown into the most hopeless and abandoned scepticism. Now, give me leave to ask you, First, Whether your referring ideas to certain absolutely existing unperceived substances, as their originals, be not the source of all this scepticism[5]? Secondly, whether you are informed, either by sense or reason[6], of the existence of those unknown originals? And, in case

[1] Cf. *Principles*, sect. 8–10, 86, 87.

[2] This difficulty is thus pressed by Reid:—'The ideas in my mind cannot be the same with the ideas in any other mind; therefore, if the objects I perceive be only ideas, it is impossible that two or more such minds can perceive the same thing. Thus there is one unconfutable consequence of Berkeley's system, which he seems not to have attended to, and from which it will be found difficult, if at all possible, to guard it. The consequence I mean is this—that, although it leaves us sufficient evidence of a Supreme Mind, it seems to take away all the evidence we have of other intelligent beings like ourselves. What I call a father, or a brother, or a friend, is only a parcel of ideas in my own mind; they cannot possibly have that relation to another mind which they have to mine, any more than the pain felt by me can be the *individual pain* felt by another. I am thus left alone as the only creature of God in the universe' (Hamilton's *Reid*, pp. 284–285). Implied Solipsism or Panegoism is thus charged against Berkeley, unless his conception of the material world is further guarded.

[3] Reid and Hamilton argue in like manner against a fundamentally representative sense-perception.

[4] Cf. *Principles*, sect. 6.

[5] Cf. Ibid., sect. 87–90.

[6] Cf. Ibid., sect. 18.

you are not, whether it be not absurd to suppose them? Thirdly, Whether, upon inquiry, you find there is anything distinctly conceived or meant by the *absolute or external existence of unperceiving substances*[1]? Lastly, Whether, the premises considered, it be not the wisest way to follow nature, trust your senses, and, laying aside all anxious thought about unknown natures or substances[2], admit with the vulgar those for real things which are perceived by the senses?

Hyl. For the present, I have no inclination to the answering part. I would much rather see how you can get over what follows. Pray are not the objects perceived by the *senses* of one, likewise perceivable to others present? If there were a hundred more here, they would all see the garden, the trees, and flowers, as I see them. But they are not in the same manner affected with the ideas I frame in my *imagination*. Does not this make a difference between the former sort of objects and the latter?

Phil. I grant it does. Nor have I ever denied a difference between the objects of sense and those of imagination[3]. But what would you infer from thence? You cannot say that sensible objects exist unperceived, because they are perceived by many.

Hyl. I own I can make nothing of that objection: but it hath led me into another. Is it not your opinion that by our senses we perceive only the ideas existing in our minds?

Phil. It is.

Hyl. But the *same* idea which is in my mind cannot be in yours, or in any other mind. Doth it not therefore follow, from your principles, that no two can see the same thing[4]? And is not this highly absurd?

Phil. If the term *same* be taken in the vulgar acceptation, it is certain (and not at all repugnant to the principles

[1] Cf. *Principles*, sect. 24.

[2] 'unknown,' i. e. unrealised in percipient life.

[3] Cf. *Principles*, sect. 28–33.

[4] See also Collier's *Clavis Universalis*, p. 6: 'Two or more persons who are present at a concert of music may indeed in some measure be said to hear the *same* notes; yet the sound which the one hears is *not the very same* with the sound which another hears, *because the souls or persons are supposed to be different.*

I maintain) that different persons may perceive the same thing; or the same thing or idea exist in different minds. Words are of arbitrary imposition; and, since men are used to apply the word *same* where no distinction or variety is perceived, and I do not pretend to alter their perceptions, it follows that, as men have said before, *several saw the same thing*, so they may, upon like occasions, still continue to use the same phrase, without any deviation either from propriety of language, or the truth of things. But, if the term *same* be used in the acceptation of philosophers, who pretend to an abstracted notion of identity, then, according to their sundry definitions of this notion (for it is not yet agreed wherein that philosophic identity consists), it may or may not be possible for divers persons to perceive the same thing[1]. But whether philosophers shall think fit to *call* a thing the *same* or no, is, I conceive, of small importance. Let us suppose several men together, all endued with the same faculties, and consequently affected in like sort by their senses, and who had yet never known the use of language; they would, without question, agree in their perceptions. Though perhaps, when they came to the use of speech, some regarding the uniformness of what was perceived, might call it the *same* thing: others, especially regarding the diversity of persons who perceived, might choose the denomination of *different* things. But who sees not that all the dispute is about a word? to wit, whether what is perceived by different persons may yet have the term *same* applied to it[2]? Or, suppose a house, whose walls or outward shell remaining unaltered, the chambers are all pulled down, and new ones built in their place; and that you should call this the

[1] Berkeley seems to hold that in *things* there is no identity other than perfect similarity—only in *persons*. And even as to personal identity he is obscure. Cf. *Siris*, sect. 347, &c.

[2] But the question is, whether the very ideas or phenomena that are perceived by me *can* be also perceived by other persons; and if not, how I can discover that 'other persons' exist, or that any finite person except myself is cognizant of the ideal cosmos—if the sort of *sameness* that Berkeley advocates is all that can be predicated of concrete ideas; which are thus only *similar*, or generically the same. Unless the ideas are *numerically* the same, can different persons make signs to one another through them?

same, and I should say it was not the *same* house:—would we not, for all this, perfectly agree in our thoughts of the house, considered in itself? And would not all the difference consist in a sound? If you should say, We differed in our notions; for that you superadded to your idea of the house the simple abstracted idea of identity, whereas I did not; I would tell you, I know not what you mean by the *abstracted idea of identity*; and should desire you to look into your own thoughts, and be sure you understood yourself.——Why so silent, Hylas? Are you not yet satisfied men may dispute about identity and diversity, without any real difference in their thoughts and opinions, abstracted from names? Take this farther reflexion with you—that whether Matter be allowed to exist or no, the case is exactly the same as to the point in hand. For the Materialists themselves acknowledge what we immediately perceive by our senses to be our own ideas. Your difficulty, therefore, that no two see the same thing, makes equally against the Materialists and me.

Hyl. [[1]Ay, Philonous,] But they suppose an external archetype, to which referring their several ideas they may truly be said to perceive the same thing.

Phil. And (not to mention your having discarded those archetypes) so may you suppose an external archetype on my principles;—*external, I mean, to your own mind:* though indeed it must be supposed to exist in that Mind which comprehends all things; but then, this serves all the ends of *identity*, as well as if it existed out of a mind[2]. And I am sure you yourself will not say it is less intelligible.

Hyl. You have indeed clearly satisfied me—either that there is no difficulty at bottom in this point; or, if there be, that it makes equally against both opinions.

[1] Omitted in author's last edition.

[2] This seems to imply that intercourse between finite persons is maintained through ideas or phenomena presented to the senses, under a tacit faith in divinely guaranteed correspondence between the phenomena of which I am conscious, and the phenomena of which my neighbour is conscious; so that they are *practically* 'the same.' If we are living in a fundamentally divine, and therefore absolutely trustworthy, universe, the phenomena presented to my senses, which I attribute to the agency of another person, are so attributed rightly. For if not, the so-called cosmos is adapted to mislead me.

Phil. But that which makes equally against two contradictory opinions can be a proof against neither.

Hyl. I acknowledge it.

But, after all, Philonous, when I consider the substance of what you advance against *Scepticism*, it amounts to no more than this:—We are sure that we really see, hear, feel; in a word, that we are affected with sensible impressions.

Phil. And how are *we* concerned any farther? I see this cherry, I feel it, I taste it: and I am sure *nothing* cannot be seen, or felt, or tasted: it is therefore *real*. Take away the sensations of softness, moisture, redness, tartness, and you take away the cherry, since it is not a being distinct from sensations. A cherry, I say, is nothing but a congeries of sensible impressions, or ideas perceived by various senses: which ideas are united into one thing (or have one name given them) by the mind, because they are observed to attend each other. Thus, when the palate is affected with such a particular taste, the sight is affected with a red colour, the touch with roundness, softness, &c. Hence, when I see, and feel, and taste, in such sundry certain manners, I am sure the cherry exists, or is real; its reality being in my opinion nothing abstracted from those sensations. But if by the word *cherry* you mean an unknown nature, distinct from all those sensible qualities, and by its *existence* something distinct from its being perceived; then, indeed, I own, neither you nor I, nor any one else, can be sure it exists.

Hyl. But, what would you say, Philonous, if I should bring the very same reasons against the existence of sensible things *in a mind*, which you have offered against their existing *in a material substratum*?

Phil. When I see your reasons, you shall hear what I have to say to them.

Hyl. Is the mind extended or unextended?

Phil. Unextended, without doubt.

Hyl. Do you say the things you perceive are in your mind?

Phil. They are.

Hyl. Again, have I not heard you speak of sensible impressions?

Phil. I believe you may.

Hyl. Explain to me now, O Philonous! how it is possible there should be room for all those trees and houses to exist in your mind. Can extended things be contained in that which is unextended? Or, are we to imagine impressions made on a thing void of all solidity? You cannot say objects are in your mind, as books in your study: or that things are imprinted on it, as the figure of a seal upon wax. In what sense, therefore, are we to understand those expressions? Explain me this if you can: and I shall then be able to answer all those queries you formerly put to me about my *substratum.*

Phil. Look you, Hylas, when I speak of objects as existing in the mind, or imprinted on the senses, I would not be understood in the gross literal sense; as when bodies are said to exist in a place, or a seal to make an impression upon wax. My meaning is only that the mind comprehends or perceives them; and that it is affected from without, or by some being distinct from itself[1]. This is my explication of your difficulty; and how it can serve to make your tenet of an unperceiving material *substratum* intelligible, I would fain know.

Hyl. Nay, if that be all, I confess I do not see what use can be made of it. But are you not guilty of some abuse of language in this?

Phil. None at all. It is no more than common custom, which you know is the rule of language, hath authorised: nothing being more usual, than for philosophers to speak of the immediate objects of the understanding as things existing in the mind. Nor is there anything in this but what is conformable to the general analogy of language; most part of the mental operations being signified by words borrowed from sensible things; as is plain in the terms *comprehend, reflect, discourse, &c.*, which, being applied to the mind, must not be taken in their gross, original sense.

Hyl. You have, I own, satisfied me in this point. But there still remains one great difficulty, which I know not how you will get over. And, indeed, it is of such impor-

[1] This explanation is often overlooked by Berkeley's critics.

tance that if you could solve all others, without being able to find a solution for this, you must never expect to make me a proselyte to your principles.

Phil. Let me know this mighty difficulty.

Hyl. The Scripture account of the creation is what appears to me utterly irreconcilable with your notions[1]. Moses tells us of a creation: a creation of what? of ideas? No, certainly, but of things, of real things, solid corporeal substances. Bring your principles to agree with this, and I shall perhaps agree with you.

Phil. Moses mentions the sun, moon, and stars, earth and sea, plants and animals. That all these do really exist, and were in the beginning created by God, I make no question. If by *ideas* you mean fictions and fancies of the mind[2], then these are no ideas. If by *ideas* you mean immediate objects of the understanding, or sensible things, which cannot exist unperceived, or out of a mind[3], then these things are ideas. But whether you do or do not call them *ideas*, it matters little. The difference is only about a name. And, whether that name be retained or rejected, the sense, the truth, and reality of things continues the same. In common talk, the objects of our senses are not termed *ideas*, but *things*. Call them so still: provided you do not attribute to them any absolute external existence, and I shall never quarrel with you for a word. The creation, therefore, I allow to have been a creation of things, of *real* things. Neither is this in the least inconsistent with my principles, as is evident from what I have now said; and would have been evident to you without this, if you had not forgotten what had been so often said before. But as for solid corporeal substances, I desire you to shew where Moses makes any mention of them; and, if they should be mentioned by him, or any other inspired writer, it would still be incumbent on you to shew those words were not taken in the vulgar acceptation, for things falling under our senses, but in the philosophic[4] acceptation, for Matter, or *an unknown*

[1] Cf. *Principles*, sect. 82–84.

[2] i. e. if you take the term *idea* in its wholly subjective and popular meaning.

[3] i. e. if you take the term *idea* in its objective meaning.

[4] 'philosophic,' i. e. *pseudo*-philosophic, against which he argues.

quiddity, with an absolute existence. When you have proved these points, then (and not till then) may you bring the authority of Moses into our dispute.

Hyl. It is in vain to dispute about a point so clear. I am content to refer it to your own conscience. Are you not satisfied there is some peculiar repugnancy between the Mosaic account of the creation and your notions?

Phil. If all possible sense which can be put on the first chapter of Genesis may be conceived as consistently with my principles as any other, then it has no peculiar repugnancy with them. But there is no sense you may not as well conceive, believing as I do. Since, besides spirits, all you conceive are ideas; and the existence of these I do not deny. Neither do you pretend they exist without the mind.

Hyl. Pray let me see any sense you can understand it in.

Phil. Why, I imagine that if I had been present at the creation, I should have seen things produced into being—that is become perceptible—in the order prescribed by the sacred historian. I ever before believed the Mosaic account of the creation, and now find no alteration in my manner of believing it. When things are said to begin or end their existence, we do not mean this with regard to God, but His creatures. All objects are eternally known by God, or, which is the same thing, have an eternal existence in His mind: but when things, before imperceptible to creatures, are, by a decree of God, perceptible to them, then are they said to begin a relative existence, with respect to created minds. Upon reading therefore the Mosaic account of the creation, I understand that the several parts of the world became gradually perceivable to finite spirits, endowed with proper faculties; so that, whoever such were present, they were in truth perceived by them[1]. This is the literal obvious sense

[1] Had this their relative existence — this realisation of the material world through finite percipient and volitional life—any beginning? May not God have been eternally presenting phenomena to the senses of percipient beings in cosmical order, if not on this planet yet elsewhere, perhaps under other conditions? Has there been any beginning in the succession of finite persons?

suggested to me by the words of the Holy Scripture: in which is included no mention, or no thought, either of *substratum*, instrument, occasion, or absolute existence. And, upon inquiry, I doubt not it will be found that most plain honest men, who believe the creation, never think of those things any more than I. What metaphysical sense you may understand it in, you only can tell.

Hyl. But, Philonous, you do not seem to be aware that you allow created things, in the beginning, only a relative, and consequently hypothetical being: that is to say, upon supposition there were *men* to perceive them; without which they have no actuality of absolute existence, wherein creation might terminate. Is it not, therefore, according to you, plainly impossible the creation of any inanimate creatures should precede that of man? And is not this directly contrary to the Mosaic account?

Phil. In answer to that, I say, first, created beings might begin to exist in the mind of other created intelligences, beside men. You will not therefore be able to prove any contradiction between Moses and my notions, unless you first shew there was no other order of finite created spirits in being, before man. I say farther, in case we conceive the creation, as we should at this time, a parcel of plants or vegetables of all sorts produced, by an invisible Power, in a desert where nobody was present—that this way of explaining or conceiving it is consistent with my principles, since they deprive you of nothing, either sensible or imaginable; that it exactly suits with the common, natural, and undebauched notions of mankind; that it manifests the dependence of all things on God; and consequently hath all the good effect or influence, which it is possible that important article of our faith should have in making men humble, thankful, and resigned to their [[1]great] Creator. I say, moreover, that, in this naked conception of things, divested of words, there will not be found any notion of what you call the *actuality of absolute existence.* You may indeed raise a dust with those terms, and so lengthen our dispute to no purpose. But I entreat you calmly to look into your own thoughts, and then tell me if they are not a useless and unintelligible jargon.

[1] In the first and second editions only.

Hyl. I own I have no very clear notion annexed to them. But what say you to this? Do you not make the existence of sensible things consist in their being in a mind? And were not all things eternally in the mind of God? Did they not therefore exist from all eternity, according to you? And how could that which was eternal be created in time? Can anything be clearer or better connected than this?

Phil. And are not you too of opinion, that God knew all things from eternity?

Hyl. I am.

Phil. Consequently they always had a being in the Divine intellect.

Hyl. This I acknowledge.

Phil. By your own confession, therefore, nothing is new, or begins to be, in respect of the mind of God. So we are agreed in that point.

Hyl. What shall we make then of the creation?

Phil. May we not understand it to have been entirely in respect of finite spirits; so that things, with regard to us, may properly be said to begin their existence, or be created, when God decreed they should become perceptible to intelligent creatures, in that order and manner which He then established, and we now call the laws of nature? You may call this a *relative*, or *hypothetical existence* if you please. But, so long as it supplies us with the most natural, obvious, and literal sense of the Mosaic history of the creation; so long as it answers all the religious ends of that great article; in a word, so long as you can assign no other sense or meaning in its stead; why should we reject this? Is it to comply with a ridiculous sceptical humour of making everything nonsense and unintelligible? I am sure you cannot say it is for the glory of God. For, allowing it to be a thing possible and conceivable that the corporeal world should have an absolute existence extrinsical to the mind of God, as well as to the minds of all created spirits; yet how could this set forth either the immensity or omniscience of the Deity, or the necessary and immediate dependence of all things on Him? Nay, would it not rather seem to derogate from those attributes?

Hyl. Well, but as to this decree of God's, for making things perceptible, what say you, Philonous? Is it not

plain, God did either execute that decree from all eternity, or at some certain time began to will what He had not actually willed before, but only designed to will? If the former, then there could be no creation, or beginning of existence, in finite things[1]. If the latter, then we must acknowledge something new to befall the Deity; which implies a sort of change: and all change argues imperfection.

Phil. Pray consider what you are doing. Is it not evident this objection concludes equally against a creation in any sense; nay, against every other act of the Deity, discoverable by the light of nature? None of which can *we* conceive, otherwise than as performed in time, and having a beginning. God is a Being of transcendent and unlimited perfections: His nature, therefore, is incomprehensible to finite spirits. It is not, therefore, to be expected, that any man, whether Materialist or Immaterialist, should have exactly just notions of the Deity, His attributes, and ways of operation. If then you would infer anything against me, your difficulty must not be drawn from the inadequateness of our conceptions of the Divine nature, which is unavoidable on any scheme; but from the denial of Matter, of which there is not one word, directly or indirectly, in what you have now objected.

Hyl. I must acknowledge the difficulties you are concerned to clear are such only as arise from the non-existence of Matter, and are peculiar to that notion. So far you are in the right. But I cannot by any means bring myself to think there is no such peculiar repugnancy between the creation and your opinion; though indeed where to fix it, I do not distinctly know.

Phil. What would you have? Do I not acknowledge a twofold state of things—the one ectypal or natural, the other archetypal and eternal? The former was created in time; the latter existed from everlasting in the mind of God[2]. Is not this agreeable to the common notions of divines? or, is any more than this necessary in order to conceive the creation? But you suspect some peculiar

[1] Is 'creation' by us distinguishable from continuous evolution, unbeginning and unending, in divinely constituted order; and is there a distinction between creation or evolution of *things* and creation or evolution of *persons*?

[2] Cf. *Siris*, sect. 347–349.

repugnancy, though you know not where it lies. To take away all possibility of scruple in the case, do but consider this one point. Either you are not able to conceive the creation on any hypothesis whatsoever; and, if so, there is no ground for dislike or complaint against any particular opinion on that score: or you are able to conceive it; and, if so, why not on my Principles, since thereby nothing conceivable is taken away? You have all along been allowed the full scope of sense, imagination, and reason. Whatever, therefore, you could before apprehend, either immediately or mediately by your senses, or by ratiocination from your senses; whatever you could perceive, imagine, or understand, remains still with you. If, therefore, the notion you have of the creation by other Principles be intelligible, you have it still upon mine; if it be not intelligible, I conceive it to be no notion at all; and so there is no loss of it. And indeed it seems to me very plain that the supposition of Matter, that is a thing perfectly unknown and inconceivable, cannot serve to make us conceive anything. And, I hope it need not be proved to you that if the existence of Matter[1] doth not make the creation conceivable, the creation's being without it inconceivable can be no objection against its non-existence.

Hyl. I confess, Philonous, you have almost satisfied me in this point of the creation.

Phil. I would fain know why you are not quite satisfied. You tell me indeed of a repugnancy between the Mosaic history and Immaterialism: but you know not where it lies. Is this reasonable, Hylas? Can you expect I should solve a difficulty without knowing what it is? But, to pass by all that, would not a man think you were assured there is no repugnancy between the received notions of Materialists and the inspired writings?

Hyl. And so I am.

Phil. Ought the historical part of Scripture to be understood in a plain obvious sense, or in a sense which is metaphysical and out of the way?

Hyl. In the plain sense, doubtless.

Phil. When Moses speaks of herbs, earth, water, &c. as having been created by God; think you not the sensible

[1] 'Matter,' i.e. Matter in this pseudo-philosophical meaning of the word.

things commonly signified by those words are suggested to every unphilosophical reader?

Hyl. I cannot help thinking so.

Phil. And are not all ideas, or things perceived by sense, to be denied a real existence by the doctrine of the Materialist?

Hyl. This I have already acknowledged.

Phil. The creation, therefore, according to them, was not the creation of things sensible, which have only a relative being, but of certain unknown natures, which have an absolute being, wherein creation might terminate?

Hyl. True.

Phil. Is it not therefore evident the assertors of Matter destroy the plain obvious sense of Moses, with which their notions are utterly inconsistent; and instead of it obtrude on us I know not what; something equally unintelligible to themselves and me?

Hyl. I cannot contradict you.

Phil. Moses tells us of a creation. A creation of what? of unknown quiddities, of occasions, or *substratum*? No, certainly; but of things obvious to the senses. You must first reconcile this with your notions, if you expect I should be reconciled to them.

Hyl. I see you can assault me with my own weapons.

Phil. Then as to *absolute existence*; was there ever known a more jejune notion than that? Something it is so abstracted and unintelligible that you have frankly owned you could not conceive it, much less explain anything by it. But allowing Matter to exist, and the notion of absolute existence to be as clear as light; yet, was this ever known to make the creation more credible? Nay, hath it not furnished the atheists and infidels of all ages with the most plausible arguments against a creation? That a corporeal substance, which hath an absolute existence without the minds of spirits, should be produced out of nothing, by the mere will of a Spirit, hath been looked upon as a thing so contrary to all reason, so impossible and absurd, that not only the most celebrated among the ancients, but even divers modern and Christian philosophers have thought Matter co-eternal with the Deity[1].

[1] Thus Origen in the early Church. That 'Matter' is co-eternal with God would mean that God is eternally making things real

Lay these things together, and then judge you whether Materialism disposes men to believe the creation of things.

Hyl. I own, Philonous, I think it does not. This of the *creation* is the last objection I can think of; and I must needs own it hath been sufficiently answered as well as the rest. Nothing now remains to be overcome but a sort of unaccountable backwardness that I find in myself towards your notions.

Phil. When a man is swayed, he knows not why, to one side of the question, can this, think you, be anything else but the effect of prejudice, which never fails to attend old and rooted notions? And indeed in this respect I cannot deny the belief of Matter to have very much the advantage over the contrary opinion, with men of a learned education.

Hyl. I confess it seems to be as you say.

Phil. As a balance, therefore, to this weight of prejudice, let us throw into the scale the great advantages[1] that arise from the belief of Immaterialism, both in regard to religion and human learning. The being of a God, and incorruptibility of the soul, those great articles of religion, are they not proved with the clearest and most immediate evidence? When I say the being of a God, I do not mean an obscure general Cause of things, whereof we have no conception, but God, in the strict and proper sense of the word. A Being whose spirituality, omnipresence, providence, omniscience, infinite power and goodness, are as conspicuous as the existence of sensible things, of which (notwithstanding the fallacious pretences and affected scruples of Sceptics) there is no more reason to doubt than of our own being.—Then, with relation to human sciences. In Natural Philosophy, what intricacies, what obscurities, what contradictions hath the belief of Matter led men into! To say nothing of the numberless disputes about its extent, continuity, homogeneity, gravity, divisibility, &c.—do they not pretend to explain all things by bodies operating on bodies, according to the laws of motion? and yet, are they able to comprehend how one body should move another? Nay,

in the percipient experience of persons.

[1] Cf. *Principles*, sect. 85–156, in which the religious and scientific advantages of the new conception of matter and the material cosmos are illustrated, when it is rightly understood and applied.

admitting there was no difficulty in reconciling the notion of an inert being with a cause, or in conceiving how an accident might pass from one body to another; yet, by all their strained thoughts and extravagant suppositions, have they been able to reach the *mechanical* production of any one animal or vegetable body? Can they account, by the laws of motion, for sounds, tastes, smells, or colours; or for the regular course of things? Have they accounted, by physical principles, for the aptitude and contrivance even of the most inconsiderable parts of the universe? But, laying aside Matter and corporeal causes, and admitting only the efficiency of an All-perfect Mind, are not all the effects of nature easy and intelligible? If the *phenomena* are nothing else but *ideas*; God is a *spirit*, but Matter an unintelligent, unperceiving being. If they demonstrate an unlimited power in their cause; God is active and omnipotent, but Matter an inert mass. If the order, regularity, and usefulness of them can never be sufficiently admired; God is infinitely wise and provident, but Matter destitute of all contrivance and design. These surely are great advantages in *Physics*. Not to mention that the apprehension of a distant Deity naturally disposes men to a negligence in their moral actions; which they would be more cautious of, in case they thought Him immediately present, and acting on their minds, without the interposition of Matter, or unthinking second causes.—Then in *Metaphysics*: what difficulties concerning entity in abstract, substantial forms, hylarchic principles, plastic natures, [1] substance and accident, principle of individuation, possibility of Matter's thinking, origin of ideas, the manner how two independent substances so widely different as *Spirit* and *Matter*, should mutually operate on each other? what difficulties, I say, and endless disquisitions, concerning these and innumerable other the like points, do we escape, by supposing only Spirits and ideas?—Even the *Mathematics* themselves, if we take away the absolute existence of extended things, become much more clear and easy; the most shocking paradoxes and intricate speculations in those sciences depending on the infinite divisibility of finite

[1] 'substance and accident'—'subjects and adjuncts,'—in the first and the second edition.

extension; which depends on that supposition.—But what need is there to insist on the particular sciences? Is not that opposition to all science whatsoever, that frenzy of the ancient and modern Sceptics, built on the same foundation? Or can you produce so much as one argument against the reality of corporeal things, or in behalf of that avowed utter ignorance of their natures, which doth not suppose their reality to consist in an external absolute existence? Upon this supposition, indeed, the objections from the change of colours in a pigeon's neck, or the appearance of the broken oar in the water, must be allowed to have weight. But these and the like objections vanish, if we do not maintain the being of absolute external originals, but place the reality of things in ideas, fleeting indeed, and changeable;—however, not changed at random, but according to the fixed order of nature. For, herein consists that constancy and truth of things which secures all the concerns of life, and distinguishes that which is *real* from the *irregular visions* of the fancy [1].

Hyl. I agree to all you have now said, and must own that nothing can incline me to embrace your opinion more than the advantages I see it is attended with. I am by nature lazy; and this would be a mighty abridgment in knowledge. What doubts, what hypotheses, what labyrinths of amusement, what fields of disputation, what an ocean of false learning, may be avoided by that single notion of *Immaterialism*!

Phil. After all, is there anything farther remaining to be done? You may remember you promised to embrace that opinion which upon examination should appear most agreeable to Common Sense and remote from Scepticism. This, by your own confession, is that which denies Matter, or the *absolute* existence of corporeal things. Nor is this all; the same notion has been proved several ways, viewed in different lights, pursued in its consequences, and all objections against it cleared. Can there be a greater evidence of its truth? or is it possible it should have all the marks of a true opinion and yet be false?

[1] Cf. *Principles*, sect. 28-42. In *Siris*, sect. 294-297, 300-318, 335, 359-365, we have glimpses of thought more allied to Platonism, if not to Hegelianism.

Hyl. I own myself entirely satisfied for the present in all respects. But, what security can I have that I shall still continue the same full assent to your opinion, and that no unthought-of objection or difficulty will occur hereafter?

Phil. Pray, Hylas, do you in other cases, when a point is once evidently proved, withhold your consent on account of objections or difficulties it may be liable to? Are the difficulties that attend the doctrine of incommensurable quantities, of the angle of contact, of the asymptotes to curves, or the like, sufficient to make you hold out against mathematical demonstration? Or will you disbelieve the Providence of God, because there may be some particular things which *you* know not how to reconcile with it? If there are difficulties attending *Immaterialism*, there are at the same time direct and evident proofs of it. But for the existence of Matter[1] there is not one proof, and far more numerous and insurmountable objections lie against it. But where are those mighty difficulties you insist on? Alas! you know not where or what they are; something which may possibly occur hereafter. If this be a sufficient pretence for withholding your full assent, you should never yield it to any proposition, how free soever from exceptions, how clearly and solidly soever demonstrated.

Hyl. You have satisfied me, Philonous.

Phil. But, to arm you against all future objections, do but consider: That which bears equally hard on two contradictory opinions can be proof against neither. Whenever, therefore, any difficulty occurs, try if you can find a solution for it on the hypothesis of the *Materialists*. Be not deceived by words; but sound your own thoughts. And in case you cannot conceive it easier by the help of *Materialism*, it is plain it can be no objection against *Immaterialism*. Had you proceeded all along by this rule, you would probably have spared yourself abundance of trouble in objecting; since of all your difficulties I challenge you to shew one that is explained by Matter: nay, which is not more unintelligible with than without that supposition; and consequently makes rather *against* than *for* it. You should consider, in each

[1] 'Matter,' i.e. matter unrealised in any mind, finite or Divine.

particular, whether the difficulty arises from the *non-existence of Matter.* If it doth not, you might as well argue from the infinite divisibility of extension against the Divine prescience, as from such a difficulty against *Immaterialism.* And yet, upon recollection, I believe you will find this to have been often, if not always, the case. You should likewise take heed not to argue on a *petitio principii.* One is apt to say—The unknown substances ought to be esteemed real things, rather than the ideas in our minds: and who can tell but the unthinking external substance may concur, as a cause or instrument, in the productions of our ideas? But is not this proceeding on a supposition that there are such external substances? And to suppose this, is it not begging the question? But, above all things, you should beware of imposing on yourself by that vulgar sophism which is called *ignoratio elenchi.* You talked often as if you thought I maintained the non-existence of Sensible Things. Whereas in truth no one can be more thoroughly assured of their existence than I am. And it is you who doubt; I should have said, positively deny it. Everything that is seen, felt, heard, or any way perceived by the senses, is, on the principles I embrace, a real being; but not on yours. Remember, the Matter you contend for is an Unknown Somewhat (if indeed it may be termed *somewhat*), which is quite stripped of all sensible qualities, and can neither be perceived by sense, nor apprehended by the mind. Remember, I say, that it is not any object which is hard or soft, hot or cold, blue or white, round or square, &c. For all these things I affirm do exist. Though indeed I deny they have an existence distinct from being perceived; or that they exist out of all minds whatsoever. Think on these points; let them be attentively considered and still kept in view. Otherwise you will not comprehend the state of the question; without which your objections will always be wide of the mark, and, instead of mine, may possibly be directed (as more than once they have been) against your own notions.

Hyl. I must needs own, Philonous, nothing seems to have kept me from agreeing with you more than this same *mistaking the question.* In denying Matter, at first glimpse I am tempted to imagine you deny the things

we see and feel: but, upon reflexion, find there is no ground for it. What think you, therefore, of retaining the name *Matter*, and applying it to *sensible things*? This may be done without any change in your sentiments: and, believe me, it would be a means of reconciling them to some persons who may be more shocked at an innovation in words than in opinion.

Phil. With all my heart: retain the word *Matter*, and apply it to the objects of sense, if you please; provided you do not attribute to them any subsistence distinct from their being perceived. I shall never quarrel with you for an expression. *Matter*, or *material substance*, are terms introduced by philosophers; and, as used by them, imply a sort of independency, or a subsistence distinct from being perceived by a mind: but are never used by common people; or, if ever, it is to signify the immediate objects of sense. One would think, therefore, so long as the names of all particular things, with the terms *sensible*, *substance*, *body*, *stuff*, and the like, are retained, the word *Matter* should be never missed in common talk. And in philosophical discourses it seems the best way to leave it quite out: since there is not, perhaps, any one thing that hath more favoured and strengthened the depraved bent of the mind towards Atheism than the use of that general confused term.

Hyl. Well but, Philonous, since I am content to give up the notion of an unthinking substance exterior to the mind, I think you ought not to deny me the privilege of using the word *Matter* as I please, and annexing it to a collection of sensible qualities subsisting only in the mind. I freely own there is no other substance, in a strict sense, than *Spirit*. But I have been so long accustomed to the *term Matter* that I know not how to part with it: to say, there is no *Matter* in the world, is still shocking to me. Whereas to say—There is no *Matter*, if by that term be meant an unthinking substance existing without the mind; but if by *Matter* is meant some sensible thing, whose existence consists in being perceived, then there is *Matter*:—this distinction gives it quite another turn; and men will come into your notions with small difficulty, when they are proposed in that manner. For, after all, the controversy about *Matter* in the strict acceptation of it, lies altogether

between you and the philosophers: whose principles, I acknowledge, are not near so natural, or so agreeable to the common sense of mankind, and Holy Scripture, as yours. There is nothing we either desire or shun but as it makes, or is apprehended to make, some part of our happiness or misery. But what hath happiness or misery, joy or grief, pleasure or pain, to do with Absolute Existence; or with unknown entities, *abstracted from all relation to us*? It is evident, things regard us only as they are pleasing or displeasing: and they can please or displease only so far forth as they are perceived. Farther, therefore, we are not concerned; and thus far you leave things as you found them. Yet still there is something new in this doctrine. It is plain, I do not now think with the philosophers; nor yet altogether with the vulgar. I would know how the case stands in that respect; precisely, what you have added to, or altered in my former notions.

Phil. I do not pretend to be a setter-up of new notions. My endeavours tend only to unite, and place in a clearer light, that truth which was before shared between the vulgar and the philosophers:—the former being of opinion, that *those things they immediately perceive are the real things*; and the latter, that *the things immediately perceived are ideas, which exist only in the mind*[1]. Which two notions put together, do, in effect, constitute the substance of what I advance.

Hyl. I have been a long time distrusting my senses: methought I saw things by a dim light and through false glasses. Now the glasses are removed and a new light breaks in upon my understanding. I am clearly convinced that I see things in their native forms, and am no longer in pain about their *unknown natures* or *absolute existence*. This is the state I find myself in at present; though, indeed, the course that brought me to it I do not

[1] These two propositions are a summary of Berkeley's conception of the material world. With him, the *immediate* objects of sense, realised in *perception*, are independent of the *will* of the percipient, and are thus external to his proper personality. Berkeley's 'material world' of enlightened Common Sense, resulting from two factors, Divine and human, is independent of each finite mind; but not independent of all living Mind.

yet thoroughly comprehend. You set out upon the same principles that Academics, Cartesians, and the like sects usually do; and for a long time it looked as if you were advancing their philosophical Scepticism: but, in the end, your conclusions are directly opposite to theirs.

Phil. You see, Hylas, the water of yonder fountain, how it is forced upwards, in a round column, to a certain height; at which it breaks, and falls back into the basin from whence it rose: its ascent, as well as descent, proceeding from the same uniform law or principle of gravitation. Just so, the same Principles which, at first view, lead to Scepticism, pursued to a certain point, bring men back to Common Sense.

DE MOTU:

SIVE

DE MOTUS PRINCIPIO ET NATURA, ET DE CAUSA COMMUNICATIONIS MOTUUM

First published in 1721

EDITOR'S PREFACE

TO

DE MOTU

This Latin dissertation on Motion, or change of place in the component atoms of the material world, was written in 1720, when Berkeley was returning to Ireland, after he had spent some years in Italy, on leave of absence from Trinity College. A prize for an essay on the 'Cause of Motion,' had, it seems, been offered in that year by the Paris Academy of Sciences. The subject suggested an advance on the line of thought pursued in Berkeley's *Principles* and *Dialogues*. The mind-dependent reality of the material world, prominent in those works, was in them insisted on, not as a speculative paradox, but mainly in order to shew the spiritual character of the Power that is continually at work throughout the universe. This essay on what was thus a congenial subject was finished at Lyons, and published early in 1721, soon after Berkeley arrived in London. It was reprinted in his *Miscellany* in 1752. I have not found evidence that it was ever submitted to the French Academy. At any rate the prize was awarded to Crousaz, the well-known logician and professor of philosophy at Lausanne.

The *De Motu* is interesting biographically as well as philosophically, as a revelation of Berkeley's way of thinking about the causal relations of Matter and Spirit seven years after the publication of the *Dialogues*. In 1713 his experience of life was confined to Ireland. Now, after months in London, in the society of Swift, and Pope, and Addison, he had observed nature and men in France and Italy. His eager temperament and extraordinary social charm opened the way in those years of travel to frequent intercourse with famous men. This, for the time, superseded controversy with materialism and scepticism, and diverted his enthusiasm to nature and high art. One likes to see how he handles the old questions as they now arise in the philosophical treatment of motion in space, which was regarded by many as the key to all other phenomena presented in the material world.

For one thing, the unreality of the data of sense after total abstraction of living mind, the chief Principle in the earlier works, lies more in the background in the *De Motu*. Yet it is tacitly assumed, as the basis of an argument for the powerlessness of all sensible things, and for refunding all active power in the universe into conscious agency. *Mens agitat molem* might be taken as a motto for the *De Motu*. Then there is more frequent reference to scientific and philosophical authorities than in his more juvenile treatises. Plato and Aristotle are oftener in view. Italy seems to have introduced him to the physical science of Borelli and Torricelli. Leibniz, who died in 1716, when Berkeley was in Italy, is named by him for the first time in the *De Motu*. Perhaps he had learned something when he was abroad about the most illustrious philosopher of the time. And it is interesting by the way to find in one of those years what is, I think, the only allusion to Berkeley by Leibniz. It is contained in one of the German philosopher's letters to Des Bosses, in 1715. 'Qui in Hybernia corporum

realitatem impugnat,' Leibniz writes, 'videtur nec rationes afferre idoneas, nec mentem suam satis explicare. Suspicor esse ex eo hominum genere qui per Paradoxa cognosci volunt.' This sentence is interesting on account of the writer, although it suggests vague, and perhaps second-hand knowledge of the Irishman and his principles. The name of Hobbes does not appear in the *De Motu*. Yet one might have expected it, in consideration of the supreme place which motion takes in his system, which rests upon the principle that all changes in the universe may be resolved into change of place.

In the *De Motu* the favourite language of ideal realism is abandoned for the most part. 'Bodies,' not 'ideas of sense,' are contrasted with mind or spirit, although body still means significant appearance presented to the senses. Indeed the term *idea* occurs less often in this and the subsequent writings of Berkeley.

I will now give some account of salient features in the *De Motu*.

Like the *Principles* the tract opens with a protest against the empty abstractions, and consequent frivolous discussions, which even mechanical science had countenanced although dealing with matters so obvious to sense as the phenomena of motion. *Force, effort, solicitation of gravity, nisus*, are examples of abstract terms connected with motion, to which nothing in what is presented to the senses is found to correspond. Yet corporeal power is spoken of as if it were something perceptible by sense, and so found *within* the bodies we see and touch (sect. 1–3).

But it turns out differently when philosophers and naturalists try to imagine the *physical force* that is supposed to inhabit bodies, and to explain their motions. The conception of motion has been the parent of innumerable paradoxes and seeming contradictions among ancient Greek thinkers; for it presents, in a striking form, the

metaphysical difficulties in the way of a reconciliation of the One and the Many—difficulties which Berkeley had already attributed to perverse abstractions, with which philosophers amused themselves and blocked up the way to concrete knowledge ; first wantonly raising a dust, and then complaining that they could not see. Nor has modern mechanical science in this respect fared better than the old philosophies. Even its leaders, Torricelli, for instance, and Leibniz, offer us scholastic shadows—empty metaphysical abstractions—when they speak about an active power that is supposed to be lodged within the things of sense. Torricelli tells us that the forces within the things around us, and within our own bodies, are 'subtle quintessences, enclosed in a corporeal substance as in the enchanted vase of Circe' ; and Leibniz speaks of their active powers as their 'substantial form,' whatever that can be conceived to mean. Others call the power to which change of place is due, the hylarchic principle, an appetite in bodies, a spontaneity inherent in them ; or they assume that, besides their extension, solidity, and other qualities which appear in sense, there is also something named force, latent in them if not patent—in all which we have a flood of words, empty of concrete thought. At best the language is metaphorical (sect. 2–9).

For showing the active cause at work in the production of motion in bodies, it is of no avail to name, as if it were a datum of sense, what is not presentable to our senses. Let us, instead, turn to the only other sort of data in realised experience. For we find only two sorts of realities in experience, the one sort revealed by our senses, the other by inward consciousness. We can affirm nothing about the contents of *bodies* except what our senses present, namely, concrete things, extended, figured, solid, having also innumerable other qualities, which seem all to depend upon change of place in the things, or in their constituent particles. The contents

of *mind* or *spirit*, on the other hand, are disclosed to inner consciousness, which reveals a sentient Ego that is actively percipient and exertive. And it must be in the second of these two concrete revelations of reality, that active causation, on which motion and all other change depends, is to be found--not in empty abstractions, covered by words like *power*, *cause*, *force*, or *nisus*, which correspond to nothing perceived by the senses (sect. 21).

So that which we call body presents *within itself* nothing in which change of place or state can originate causally. Extension, figure, solidity, and all the other perceptible constituents of bodies are appearances only—passive phenomena, which succeed one another in an orderly cosmical procession, on which doubtless our pains and pleasures largely depend. But there is no sensibly perceptible power found among those sensuous appearances. They can only be *caused causes*, adapted, as we presuppose, to signify to us what we may expect to follow that appearance. The reason of their significance, i. e. of the constancy of their sequences and coexistences, must be sought for *outside of themselves*. Experimental research may discover new terms among the correlated cosmical sequences or coexistences, but the newly discovered terms must still be only passive phenomena previously unperceived. Body means only what is presentable to the senses. Those who attribute to it something not perceptible by sense, which they call the force or power in which its motions originate, say in other words that the origin of motion is unknowable by sense (sect. 22–24).

Turn now from things of sense, the data of perception, to Mind or Spirit, as revealed in inner consciousness. Here we have a deeper and more real revelation of what underlies, or is presupposed in, the passive cosmical procession that is presented to the senses. Our inward consciousness plainly shews the thinking being actually

exercising power to move its animated body. We find that we can, by a causal exertion of which we are distinctly conscious, either excite or arrest movements in bodies. In voluntary exertion we have thus a concrete example of force or power, *producing* and not merely *followed by* motion. In the case of human volition this is no doubt conditioned power; nevertheless it exemplifies Power on a greater scale than human, even Divine power, universally and continuously operative, in all natural motions, and in the cosmical laws according to which they proceed (sect. 25–30).

Thus those who pretend to find force or active causation *within* bodies, pretend to find what their sensuous experience does not support, and they have to sustain their pretence by unintelligible language. On the other hand, those who explain motion by referring it to conscious exertion of personal agents, say what is supported by their own consciousness, and confirmed by high authorities, including Anaxagoras, Plato, Aristotle, Descartes, and Newton, demonstrating that in Spirit only do we find power to change its own state, as well as the states and mutual relations of bodies. Motion in nature is God continuously acting (sect. 31–34). But physical science is conveniently confined to the order of the passive procession of sensuous appearances, including experiments in quest of the rules naturally exemplified in the motions of bodies: reasoning on mathematical and mechanical principles, it leaves the contemplation of active causation to a more exalted science (sect. 35–42).

In all this it can hardly be said that Berkeley has in this adequately sounded the depths of Causation. He proclaims inability to find through his senses more than sequence of significant sensuous appearances, which are each and all empty of active power; while he apparently insists that he *has* found active power in the mere *feeling*

of exertion; which after all, as such, is only one sort of antecedent sign of the motion that is found to follow it. This is still only sequence of phenomena; not active power. But is not causation a relation that cannot be truly presented empirically, either in outer or inner consciousness? And is not the Divine order that is presupposed by us in all change, a presupposition that is inevitable in trustworthy intercourse with a changing universe; unless we are to confess *atheistically*, that our whole sensuous experience may in the end put us to utter confusion? The passive, uneasy feeling of strain, more or less involved in the effort to move our bodies and their surroundings, is no doubt apt to be confused with active causation; for as David Hume remarks, 'the animal *nisus* which we experience, though it can afford no accurate precise idea of power, enters very much into the vulgar, inaccurate idea which is formed of it.' So when Berkeley supposes that he has found a concrete example of originating power in the *nisus* of which we are conscious when we move our bodies, he is surely too easily satisfied. The *nisus* followed by motion is, *per se*, only a natural sequence, a caused cause, which calls for an originating cause that is *absolutely* responsible for the movement. Is not the index to this absolutely responsible agency an ethical one, which points to a free moral agent as alone necessarily connected with, or responsible for, the changes which *he can* control? Persons are causally responsible for their own actions; and are accordingly pronounced good or evil on account of acts of will that are not mere caused causes—passively dependent terms in the endless succession of cosmical change. They must originate in self, be absolutely self-referable, in a word supernatural issues of the personality. Moral reason implies that they are not determined *ab extra*, and so points to moral agents as our only concrete examples of independent power; but this only so far as those issues go for which they are morally

responsible. Is not faith in the Universal Power necessarily faith-venture in the absolutely perfect and trustworthy moral agency of God?

While the principle of Causation, in its application to change of place on the part of bodies and their constituent atoms, is the leading thought in the *De Motu*, this essay also investigates articulately the nature of the phenomenon which we call *motion* (sect. 43–66). It assumes that motion is only an effect, seeing that no one who reflects can doubt that what is presented to our senses in the case of motion is altogether passive: there is nothing in the successive appearance of the same body in different places that involves action on the part of either of the moving or the moved body, or that can be more than inert effect (sect. 49). And all concrete motion, it is assumed, must be something that can be perceived by our senses. Accordingly it must be a perceptible *relation between bodies*, as far as it is bodily: it could make no appearance at all if space contained only one solitary body: a plurality of bodies is indispensable to its appearance. Absolute motion of a solitary body, in otherwise absolutely empty space, is an unmeaning abstraction, a collocation of empty words. This leads into an inquiry about relative space as well as relative place, and the intelligibility of absolute space, place, and motion (sect. 52–64).

Local motion is unintelligible unless we understand the meaning of *space*. Now some philosophers distinguish between absolute space, which with them is ultimately the only real space, and that which is conditioned by the senses, or relative. The former is said to be boundless, pervading and embracing the material world, but not itself presentable to our senses; the other is the space marked out or differentiated by bodies contained in it, and it is in this way exposed to our senses (sect. 52). What must remain after the annihilation of all bodies in the

universe is relativeless, undifferentiated, absolute space, of which all attributes are denied, even its so-called extension being neither divisible nor measurable; necessarily imperceptible by sense, unimaginable, and unintelligible, in every way unrealisable in experience; so that the words employed about it denote *nothing* (sect. 53).

It follows that we must not speak of the real space which a body occupies as part of a space that is necessarily abstracted from all sentient experience; nor of real motion as change within absolute space, without any relation between bodies, either perceived or conceived. All change of place in one body must be relative to other bodies, among which the moving body is supposed to change its place—our own bodies which we animate being of course recognised among the number. Motion, it is argued, is unintelligible, as well as imperceptible and unimaginable, without some relation between the moving body and at least one other body: the truth of this is tested when we try to suppose the annihilation of all other bodies, our own included, and retain only a solitary globe: absolute motion is found unthinkable. So that, on the whole, to see what motion means we must rise above the mathematical postulates that are found convenient in mechanical science; we must beware of empty abstractions; we must treat motion as something that is real only so far as it is presented to our senses, and remain modestly satisfied with the perceived relations under which it then appears (sect. 65-66).

Finally, is motion, thus explained, something that can be spoken of as an entity communicable from one body to another body? May we think of it as a datum of sense existing in the striking body, and then passing from it into the struck body, the one losing exactly as much as the other receives? (sect. 67). Deeper thought finds in those questions only a revival of the previously

exploded postulate of 'force' as *something sensible*, yet distinct from all the significant appearances sense presents. The language used may perhaps be permitted in mathematical hypotheses, or postulates of mechanical science, in which we do not intend to go to the root of things. But the obvious fact is, that the moving body shews less perceptible motion, and the moved body more. To dispute whether the perceptible motion acquired is numerically the same with that lost leads into frivolous verbal controversy about Identity and Difference, the One and the Many, which it was Berkeley's aim to expel from science, and so to simplify its procedure and result. Whether we say that motion passes from the striking body into the struck, or that it is generated anew within the struck body and annihilated in the striking, we make virtually the same statement. In each way of expression the facts remain, that the one body presents perceptible increase of its motion and the other diminution. Mind or Spirit is the active cause of all that we then see. Yet in mechanical science—which explains things only physically, by shewing the significant connexion of events with their mechanical rules—terms which seem to imply the conveyance of motion out of one body into another may be pardoned, in consideration of the limits within which physical science is confined, and its narrower point of view. In physics we confine ourselves to the sensuous signs which arise in experience, and their natural interpretation, in all which mathematical hypotheses are found convenient; so that gravitation, for example, and other natural rules of procedure, are spoken of as *causes* of the events which conform to them, no account being taken of the Active Power that is ultimately responsible for the rules. For the Active Power in which we live, move, and have our being, is not a datum of sense; meditation brings it into light. But to pursue this thought would carry us beyond the physical laws of Motion (sect. 69–72).

The *De Motu* may be compared with what we found in the *Principles*, sect. 25–28 and 101–117. The total powerlessness of the significant appearances presented to the senses, and the omnipotence of Mind in the economy of external nature, is its chief philosophical lesson.

DE MOTU

1. Ad veritatem inveniendam præcipuum est cavisse ne voces male intellectæ [1] nobis officiant: quod omnes fere monent philosophi, pauci observant. Quanquam id quidem haud adeo difficile videtur, in rebus præsertim physicis tractandis, ubi locum habent sensus, experientia, et ratiocinium geometricum. Seposito igitur, quantum licet, omni præjudicio, tam a loquendi consuetudine quam a philosophorum auctoritate nato, ipsa rerum natura diligenter inspicienda. Neque enim cujusquam auctoritatem usque adeo valere oportet, ut verba ejus et voces in pretio sint, dummodo nihil clari et certi iis subesse comperiatur.

2. Motus contemplatio mire torsit veterum philosophorum [2] mentes, unde natæ sunt variæ opiniones supra modum difficiles, ne dicam absurdæ; quæ, quum jam fere in desuetudinem abierint, haud merentur ut iis discutiendis nimio studio immoremur. Apud recentiores autem et saniores hujus ævi philosophos [3], ubi de Motu agitur, vocabula haud pauca abstractæ nimium et obscuræ significationis occurrunt, cujusmodi sunt *solicitatio gravitatis, conatus, vires mortuæ*, &c., quæ scriptis, alioqui doctissimis, tenebras offundunt, sententiisque non minus a vero, quam a sensu hominum communi abhorrentibus, ortum præbent.

[1] 'voces male intellectæ.' Cf. *Principles of Human Knowledge*, 'Introduction,' sect. 6, 23-25, on the abuse of language, especially by abstraction.

[2] 'veterum philosophorum.' The history of ancient speculations about motion, from the paradoxes of Zeno downwards, is, in some sort, a history of ancient metaphysics. It involves Space, Time, and the material world, with the ultimate causal relation of Nature to Spirit.

[3] 'hujus ævi philosophos.' As in Bacon on motion, and in the questions raised by Newton, Borelli, Leibniz, and others, discussed in the following sections.

Hæc vero necesse est ut, veritatis gratia, non alios refellendi studio, accurate discutiantur.

3. *Solicitatio* et *nisus*, sive *conatus*, rebus solummodo animatis revera competunt[1]. Cum aliis rebus tribuuntur, sensu metaphorico accipiantur necesse est. A metaphoris autem abstinendum philosopho. Porro, seclusa omni tam animæ affectione quam corporis motione, nihil clari ac distincti iis vocibus significari, cuilibet constabit qui modo rem serio perpenderit.

4. Quamdiu corpora gravia a nobis sustinentur, sentimus in nobismet ipsis nisum, fatigationem, et molestiam. Percipimus etiam in gravibus cadentibus motum acceleratum versus centrum telluris; ope sensuum præterea nihil. Ratione tamen colligitur causam esse aliquam vel principium horum phænomenon; illud autem *gravitas* vulgo nuncupatur. Quoniam vero causa descensus gravium cæca sit et incognita, gravitas ea acceptione proprie dici nequit qualitas sensibilis; est igitur qualitas occulta. Sed vix, et ne vix quidem, concipere licet quid sit qualitas occulta, aut qua ratione qualitas ulla agere aut operari quidquam possit. Melius itaque foret, si, missa qualitate occulta, homines attenderent solummodo ad effectus sensibiles; vocibusque abstractis (quantumvis illæ ad disserendum utiles sint) in meditatione omissis, mens in particularibus et concretis, hoc est in ipsis rebus, defigeretur.

5. *Vis*[2] similiter corporibus tribuitur: usurpatur autem vocabulum illud, tanquam significaret qualitatem cognitam, distinctamque tam a motu, figura, omnique alia re sensibili, quam ab omni animalis affectione: id vero nihil aliud esse quam qualitatem *occultam*, rem acrius rimanti constabit. Nisus animalis et motus corporeus vulgo spectantur tanquam symptomata et mensuræ hujus qualitatis occultæ.

6. Patet igitur gravitatem aut vim frustra poni pro principio[3] motus: nunquid enim principium illud clarius

[1] Sect. 3–42 are concerned with the principle of Causality, exemplified in the motion, or change of place and state, that is continually going on in the material world, and which was supposed by some to explain all the phenomena of the universe.

[2] 'vis.' The assumption that *active power* is an immediate datum of sense is the example here offered of the abuse of abstract words. He proceeds to dissolve the assumption by shewing that it is meaningless.

[3] 'principio'—the ultimate explanation or originating cause. Cf. sect. 36. Metaphors, or indeed

cognosci potest ex eo quod dicatur qualitas occulta? Quod ipsum occultum est, nihil explicat: ut omittamus causam agentem incognitam rectius dici posse substantiam quam qualitatem. Porro *vis*, *gravitas*, et istiusmodi voces, sæpius, nec inepte, in concreto usurpantur; ita ut connotent corpus motum, difficultatem resistendi, &c. Ubi vero a philosophis adhibentur ad significandas naturas quasdam, ab hisce omnibus præcisas et abstractas, quæ nec sensibus subjiciuntur, nec ulla mentis vi intelligi nec imaginatione effingi[1] possunt, tum demum errores et confusionem pariunt.

7. Multos autem in errorem ducit, quod voces generales et abstractas in disserendo utiles esse videant, nec tamen earum vim satis capiant. Partim vero a consuetudine vulgari inventæ sunt illæ ad sermonem abbreviandum, partim a philosophis ad docendum excogitatæ; non quod ad naturas rerum accommodatæ sint, quæ quidem singulares et concretæ existunt; sed quod idoneæ ad tradendas disciplinas, propterea quod faciant notiones, vel saltem propositiones, universales[2].

8. *Vim corpoream* esse aliquid conceptu facile plerumque existimamus. Ii tamen qui rem accuratius inspexerunt in diversa sunt opinione; uti apparet ex mira verborum obscuritate qua laborant, ubi illam explicare conantur. Torricellius ait vim et impetum esse res quasdam abstractas subtilesque et quintessentias, quæ includuntur in substantia corporea, tanquam in vase magico Circes[3]. Leibnitius item in naturæ vi explicanda hæc habet—*Vis activa, primitiva, quæ est* ἐντελέχεια πρώτη, *animæ vel formæ substantiali*

empty words, are accepted for explanations, it is argued, when *bodily* power or force, in any form, e.g. gravitation, is taken as the real cause of motion. To call these 'occult causes' is to say nothing that is intelligible. The perceived sensible effects and their customary sequences are all we know. Physicists are still deluded by words and metaphors.

[1] Cf. sect. 53, where *sense*, *imagination*, and *intelligence* are distinguished.

[2] Cf. *Principles*, Introd. 16, 20, 21; also *Alciphron*, Dial. VII. sect. 8, 17.

[3] [La Materia altro non è che un vaso di Circe incantato, il quale serve per ricettacolo della forza et de' momenti dell' impeto. La forzae l'impeti sono astratti tanto sottili, sono quintessenze tanto spiritose, che in altre ampolle non si possono racchiudere, fuor che nell' intima corpulenza de' solidi naturali, Vide *Lezioni Accademiche.*] —Author. Torricelli (1608–47), the eminent Italian physicist, and professor of mathematics at Florence, who invented the barometer.

respondet. Vide *Acta Erudit. Lips.* Usque adeo necesse est ut vel summi viri, quamdiu abstractionibus indulgent, voces nulla certa significatione præditas, et meras scholasticorum umbras sectentur. Alia ex neotericorum scriptis, nec pauca quidem ea, producere liceret; quibus abunde constaret, metaphysicas abstractiones non usquequaque cessisse mechanicæ et experimentis, sed negotium inane philosophis etiamnum facessere.

9. Ex illo fonte derivantur varia absurda, cujus generis est illud, *vim percussionis, utcunque exiguæ, esse infinite magnam.* Quod sane supponit, gravitatem esse qualitatem quandam realem ab aliis omnibus diversam; et gravitationem esse quasi actum hujus qualitatis, a motu realiter distinctum: minima autem percussio producit effectum majorem quam maxima gravitatio sine motu; illa scilicet motum aliquem edit, hæc nullum. Unde sequitur, vim percussionis ratione infinita excedere vim gravitationis, hoc est, esse infinite magnam [1]. Videantur experimenta Galilæi, et quæ de definita vi percussionis scripserunt Torricellius, Borellus, et alii.

10. Veruntamen fatendum est vim nullam per se immediate sentiri; neque aliter quam per effectum [2] cognosci et mensurari. Sed vis mortuæ, seu gravitationis simplicis, in corpore quiescente subjecto, nulla facta mutatione, effectus nullus est; percussionis autem, effectus aliquis. Quoniam, ergo, vires sunt effectibus proportionales, concludere licet vim mortuam [3] esse nullam. Neque tamen propterea vim percussionis esse infinitam: non enim oportet quantitatem ullam positivam habere pro infinita, propterea quod ratione infinita superet quantitatem nullam sive nihil.

[1] Borelli (1608–79), Italian professor of mathematics at Pisa, and then of medicine at Florence; see his *De Vi Percussionis*, cap. XXIV. prop. 88, and cap. XXVII.

[2] 'per effectum,' i. e. by its sensible effects—real power or active force not being a datum of the senses, but found in the spiritual efficacy, of which we have an example in our personal agency.

[3] 'vim mortuam.' The only power we can find is the living power of Mind. Reason is perpetually active in the universe, imperceptible through the senses, and revealed to *them* only in its sensible effects. 'Power,' e.g. 'gravitation,' in things, *per se*, is distinguished from perceived 'motion' only through illusion due to misleading abstraction. There is no *physical* power, intermediate between spiritual agency, on the one hand, and the sensible changes we see, on the other. Cf. sect. 11.

11. Vis gravitationis a momento secerni nequit; momentum autem sine celeritate nullum est, quum sit moles in celeritatem ducta: porro celeritas sine motu intelligi non potest; ergo nec vis gravitationis. Deinde vis nulla nisi per actionem innotescit, et per eandem mensuratur; actionem autem corporis a motu præscindere non possumus; ergo quamdiu corpus grave plumbi subjecti vel chordæ figuram mutat, tamdiu movetur; ubi vero quiescit, nihil agit, vel, quod idem est, agere prohibetur. Breviter, voces istæ *vis mortua* et *gravitatio*, etsi per abstractionem metaphysicam aliquid significare supponuntur diversum a movente, moto, motu et quiete, revera tamen id totum nihil est.

12. Siquis diceret pondus appensum vel impositum agere in chordam, quoniam impedit quominus se restituat vi elastica: dico, pari ratione corpus quodvis inferum agere in superius incumbens, quoniam illud descendere prohibet: dici vero non potest actio corporis, quod prohibeat aliud corpus existere in eo loco quem occupat.

13. Pressionem corporis gravitantis quandoque sentimus. Verum sensio ista molesta oritur ex motu corporis istius gravis fibris nervisque nostri corporis communicato, et eorundem situm immutante; adeoque percussioni accepta referri debet. In hisce rebus multis et gravibus præjudiciis laboramus, sed illa acri atque iterata meditatione subigenda sunt [1], vel potius penitus averruncanda.

14. Quo probetur quantitatem ullam esse infinitam, ostendi oportet partem aliquam finitam homogeneam in ea infinities contineri. Sed vis mortua se habet ad vim percussionis, non ut pars ad totum, sed ut punctum ad lineam, juxta ipsos vis infinitæ percussionis auctores. Multa in hanc rem adjicere liceret, sed vereor ne prolixus sim.

15. Ex principiis præmissis lites insignes solvi possunt, quæ viros doctos multum exercuerunt. Hujus rei exemplum sit controversia illa de proportione virium. Una pars dum concedit, momenta, motus, impetus, data mole, esse simpliciter ut velocitates, affirmat vires esse ut quadrata velocitatum. Hanc autem sententiam supponere vim

[1] 'meditatione subigenda sunt.' Cf. *Theory of Vision Vindicated*, sect. 35, 70.

corporis distingui[1] a momento, motu, et impetu; eaque suppositione sublata corruere, nemo non videt.

16. Quo clarius adhuc appareat, confusionem quandam miram per abstractiones metaphysicas in doctrinam de motu introductam esse, videamus quantum intersit inter notiones virorum celebrium de vi et impetu. Leibnitius impetum cum motu confundit. Juxta Newtonum[2] impetus revera idem est cum vi inertiæ. Borellus[3] asserit impetum non aliud esse quam gradum velocitatis. Alii impetum et conatum inter se differre, alii non differre volunt. Plerique vim motricem motui proportionalem intelligunt. Nonnulli aliam aliquam vim præter motricem, et diversimode mensurandam, utpote per quadrata velocitatum in moles, intelligere præ se ferunt. Sed infinitum esset hæc prosequi.

17. *Vis, gravitas, attractio*, et hujusmodi voces, utiles[4] sunt ad ratiocinia et computationes de motu et corporibus motis; sed non ad intelligendam simplicem ipsius motus naturam, vel ad qualitates totidem distinctas designandas. Attractionem certe quod attinet, patet illam ab Newtono adhiberi, non tanquam qualitatem veram et physicam, sed solummodo ut hypothesin mathematicam[5]. Quinetiam Leibnitius, nisum elementarem seu solicitationem ab impetu distinguens, fatetur illa entia non re ipsa inveniri in rerum natura, sed abstractione facienda esse.

18. Similis ratio est compositionis et resolutionis virium quarumcunque directarum in quascunque obliquas, per diagonalem et latera parallelogrammi. Hæc mechanicæ et computationi inserviunt: sed aliud est computationi et demonstrationibus mathematicis inservire, aliud rerum naturam exhibere.

19. Ex recentioribus multi sunt in ea opinione, ut putent

[1] 'distingui.' It is here argued that so-called power within the things of sense is not distinguishable from the sensibly perceived sequences. To the meaningless supposition that it is, he attributes the frivolous verbal controversies among the learned mentioned in the following section. The province of natural philosophy, according to Berkeley, is to inquire what the rules are under which sensible effects are uniformly manifested. Cf. *Siris*, sect. 236, 247, 249.

[2] *Principia Math.* Def. III.

[3] *De Vi Percussionis*, cap. I.

[4] 'utiles.' Such words as 'force,' 'power,' 'gravity,' 'attraction,' are held to be convenient in physical reasonings about the *phenomena* of motion, but worthless as philosophical expressions of the *cause* of motion, which transcends sense and mechanical science. Cf. *Siris*, sect. 234, 235.

[5] Cf. sect. 67.

motum neque destrui nec de novo gigni, sed eandem[1] semper motus quantitatem permanere. Aristoteles etiam dubium illud olim proposuit—utrum motus factus sit et corruptus, an vero ab æterno? *Phys.* lib. viii. Quod vero motus sensibilis pereat, patet sensibus: illi autem eundem impetum, nisum, aut summam virium eandem manere velle videntur. Unde affirmat Borellus, vim in percussione non imminui, sed expandi; impetus etiam contrarios suscipi et retineri in eodem corpore. Item Leibnitius nisum ubique et semper esse in materia, et ubi non patet sensibus, ratione intelligi contendit.—Hæc autem nimis abstracta esse et obscura, ejusdemque fere generis cum formis substantialibus et entelechiis, fatendum.

20. Quotquot ad explicandam motus causam atque originem, vel principio hylarchico, vel naturæ indigentia, vel appetitu, aut denique instinctu naturali utuntur, dixisse aliquid potius quam cogitasse censendi sunt. Neque ab hisce multum absunt qui supposuerint[2] *partes terræ esse se moventes, aut etiam spiritus iis implantatos ad instar formæ*, ut assignent causam accelerationis gravium cadentium: aut qui dixerit[3], *in corpore præter solidam extensionem debere etiam poni aliquid unde virium consideratio oriatur.* Siquidem hi omnes vel nihil particulare et determinatum enuntiant; vel, si quid sit, tam difficile erit illud explicare, quam id ipsum cujus explicandi causa adducitur[4].

21. Frustra ad naturam illustrandam adhibentur ea quæ nec sensibus patent, nec ratione intelligi possunt. Videndum ergo quid sensus, quid experientia, quid demum ratio iis innixa, suadeat. Duo sunt summa rerum genera—*corpus* et *anima*. Rem extensam, solidam, mobilem, figuratam, aliisque qualitatibus quæ sensibus occurrunt præditam, ope sensuum; rem vero sentientem, percipientem, intelligentem, conscientia quadam interna cogno-

[1] 'eandem.' So in recent discussions on the conservation of force.

[2] [Borellus.]—Author. See *De Vi Percussionis*, cap. XXIII.

[3] [Leibnitius.]—Author.

[4] On Berkeley's reasoning all terms which involve the assumption that real causality is something presentable to the senses are a cover for meaninglessness. Only through self-conscious experience of personal activity does real meaning enter into the portion of language which deals with active causation. This is argued in detail in sect. 21–35.

vimus. Porro, res istas plane inter se diversas esse, longeque heterogeneas, cernimus. Loquor autem de rebus cognitis: de incognitis enim disserere nil juvat [1].

22. Totum id quod novimus, cui nomen *corpus* indidimus, nihil *in se* continet quod motus principium seu causa efficiens esse possit. Etenim impenetrabilitas, extensio, figura nullam includunt vel connotant potentiam producendi motum; quinimo e contrario non modo illas, verum etiam alias, quotquot sint, corporis qualitates sigillatim percurrentes, videbimus omnes esse revera passivas, nihilque iis activum inesse, quod ullo modo intelligi possit tanquam fons et principium motus [2]. Gravitatem quod attinet, voce illa nihil cognitum et ab ipso effectu sensibili, cujus causa quæritur, diversum significari jam ante ostendimus. Et sane quando corpus grave dicimus, nihil aliud intelligimus, nisi quod feratur deorsum; de causa hujus effectus sensibilis nihil omnino cogitantes.

23. De corpore itaque audacter pronunciare licet, utpote de re comperta, quod non sit principium motus. Quod si quisquam, præter solidam extensionem ejusque modificationes, vocem *corpus* qualitatem etiam *occultam*, virtutem, formam, essentiam complecti sua significatione contendat; licet quidem illi inutili negotio sine ideis disputare, et nominibus nihil distincte exprimentibus abuti. Cæterum sanior philosophandi ratio videtur ab notionibus abstractis et generalibus (si modo notiones dici debent quæ intelligi nequeunt) quantum fieri potest abstinuisse.

24. Quicquid continetur in idea corporis novimus; quod

[1] Our concrete experience is assumed to be confined to (*a*) *bodies*, i.e. the data of the senses, and (*b*) *mind* or *spirit* — sentient, intelligent, active—revealed by internal consciousness. Cf. *Principles*, sect. 1, 2, in which experience is resolved into *ideas* and the *active intelligence* which they presuppose. Here the word idea disappears, but, in accordance with its signification, 'bodies' is still regarded as aggregates of external phenomena, the passive subjects of changes of place and state: the idealisation of the material world is tacitly implied, but not obtruded.

[2] 'nihilque,' &c. Cf. *Principles of Human Knowledge*, e.g. sect. 26, 65, 66, where the essential passivity of the *ideas* presented to the senses, i.e. the material world, is maintained as a cardinal principle—on the positive ground of our percipient experience of sensible things. To speak of the cause of motion as *something sensible*, he argues (sect. 24), is merely to shew that we know nothing about it. Cf. sect. 28, 29, infra.

vero novimus in corpore, id non esse principium motus constat[1]. Qui præterea aliquid incognitum in corpore, cujus ideam nullam habent, comminiscuntur, quod motus principium dicant, ii revera nihil aliud quam *principium motus esse incognitum* dicunt. Sed hujusmodi subtilitatibus diutius immorari piget.

25. Præter res corporeas alterum est *genus rerum cogitantium*[2]. In iis autem potentiam inesse corpora movendi, propria experientia didicimus[3]; quandoquidem anima nostra pro lubitu possit ciere et sistere membrorum motus, quacunque tandem ratione id fiat. Hoc certe constat, corpora moveri ad nutum animæ; eamque proinde haud inepte dici posse principium motus: particulare quidem et subordinatum, quodque ipsum dependeat a primo et universali Principio[4].

26. Corpora gravia feruntur deorsum, etsi nullo impulsu apparente agitata; non tamen existimandum propterea in iis contineri principium motus: cujus rei hanc rationem assignat Aristoteles[5]:—*Gravia et levia* (inquit) *non moventur a seipsis; id enim vitale esset, et se sistere possent.* Gravia omnia una eademque certa et constanti lege centrum telluris petunt, neque in ipsis animadvertitur principium vel facultas ulla motum istum sistendi, minuendi, vel, nisi pro rata proportione, augendi, aut denique ullo modo immutandi: habent adeo se passive. Porro idem, stricte et accurate loquendo, dicendum de corporibus percussivis. Corpora ista quamdiu moventur, ut et in ipso percussionis momento, si gerunt passive, perinde scilicet atque cum quiescunt. Corpus iners tam agit quam corpus motum, si

[1] The phenomena that can be presented to the senses are taken as the measure of what can be attributed to the material world; and as the senses present *only* conditioned change of place in bodies, we must look for the active cause in the invisible world which internal consciousness presents to us.

[2] '*genus rerum cogitantium.*' Cf. *Principles*, sect. 2.

[3] 'experientia didicimus.' Can the merely empirical data even of internal consciousness reveal this causal connexion between volition and bodily motions, without the venture of theistic faith?

[4] 'a primo et universali Principio' i. e. God, or the Universal Spirit, in whom the universe of bodies and spirits finds explanation; in a way which Berkeley does not attempt to unfold articulately and exhaustively in philosophical system.

[5] *Phys.* θ. 4. 255 a 5-7.

res ad verum exigatur: id quod agnoscit Newtonus, ubi ait, vim inertiæ esse eandem cum impetu[1]. Corpus autem iners et quietum nihil agit, ergo nec motum.

27. Revera corpus æque perseverat in utrovis statu, vel motus vel quietis. Ista vero perseverantia non magis dicenda est actio corporis, quam existentia ejusdem actio diceretur. Perseverantia nihil aliud est quam continuatio in eodem modo existendi, quæ proprie dici actio non potest. Cæterum resistentiam, quam experimur in sistendo corpore moto, ejus actionem esse fingimus vana specie delusi. Revera enim ista resistentia quam sentimus[2], passio est in nobis, neque arguit corpus agere, sed nos pati: constat utique nos idem passuros fuisse, sive corpus illud a se moveatur, sive ab alio principio impellatur.

28. Actio et reactio dicuntur esse in corporibus: nec incommode ad demonstrationes mechanicas[3]. Sed cavendum, ne propterea supponamus virtutem aliquam realem, quæ motus causa sive principium sit, esse in iis. Etenim voces illæ eodem modo intelligendæ sunt ac vox *attractio;* et quemadmodum hæc est hypothesis solummodo mathematica[4], non autem qualitas physica: idem etiam de illis intelligi debet, et ob eandem rationem. Nam sicut veritas et usus theorematum de mutua corporum attractione in philosophia mechanica stabiles manent, utpote unice fundati in motu corporum, sive motus iste causari supponatur per actionem corporum se mutuo attrahentium, sive per actionem agentis alicujus a corporibus diversi impellentis et moderantis corpora; pari ratione, quæcunque tradita sunt de regulis et legibus motuum, simul ac theoremata inde deducta, manent inconcussa, dum modo concedantur effectus sensibiles, et ratiocinia iis innixa; sive supponamus actionem ipsam, aut vim horum effectuum causatricem, esse in corpore, sive in agente incorporeo.

29. Auferantur ex idea corporis extensio, soliditas, figura, remanebit nihil[5]. Sed qualitates istæ sunt ad motum

[1] *Princip. Math.* Def. III.

[2] 'resistentia.' Our muscular *sensation* of resistance is apt to be accepted empirically as itself *active power in the concrete*, entering very much, as has been said, into the often inaccurate idea of power which is formed. See Editor's Preface.

[3] 'nec incommode.' Cf. sect. 17, and note.

[4] 'hypothesis mathematica.' Cf. sect. 17, 35, 36–41, 66, 67; also *Siris*, sect. 250–251.

[5] 'nihil.' This section sums up Berkeley's objections to crediting

indifferentes, nec in se quidquam habent quod motus principium dici possit. Hoc ex ipsis ideis nostris perspicuum est. Si igitur voce *corpus* significatur id quod concipimus, plane constat inde non peti posse principium motus: pars scilicet nulla aut attributum illius causa efficiens vera est, quæ motum producat. Vocem autem proferre, et nihil concipere, id demum indignum esset philosopho.

30. Datur res cogitans, activa, quam principium motus esse in nobis experimur[1]. Hanc *animam, mentem, spiritum* dicimus. Datur etiam res extensa, iners, impenetrabilis, mobilis, quæ a priori toto cœlo differt, novumque genus[2] constituit. Quantum intersit inter res cogitantes et extensas, primus omnium deprehendens Anaxagoras, vir longe sapientissimus, asserebat mentem nihil habere cum corporibus commune, id quod constat ex primo libro Aristotelis *De Anima*[3]. Ex neotericis idem optime animadvertit Cartesius[4]. Ab eo alii[5] rem satis claram vocibus obscuris impeditam ac difficilem reddiderunt.

31. Ex dictis manifestum est eos qui vim activam, actionem, motus principium, in *corporibus* revera inesse affirmant, sententiam nulla experientia fundatam amplecti, eamque terminis obscuris et generalibus adstruere, nec

matter with real power; the senses being taken as the test of what is contained in matter. It may be compared with David Hume, Thomas Brown, and J. S. Mill on Causation. Berkeley differs from them in recognising active power in spirit, while with them he resolves causation among bodies into invariable sequence.

[1] Can the data presented to us reveal more than sequence, in the relation between our volitions and the corresponding movements of our bodies? Is not the difference found in the moral presupposition, which *supernaturalises* man in his voluntary or morally responsible activity? This obliges us to see *ourselves* as absolutely original causes of all bodily and mental states for which we can be morally approved or blamed.

[2] 'novumque genus.' Cf. sect. 21. We have here Berkeley's antithesis of mind and matter—spirits and external phenomena presented to the senses—persons in contrast to passive ideas.

[3] *De Anima*, I. ii. 13, 22, 24.

[4] 'Cartesius.' The antithesis of extended things and thinking things pervades Descartes; but not, as with Berkeley, on the foundation of the new conception of what is truly meant by matter or sensible things. See e.g. *Principia*, P. I. §§ 63, 64.

[5] 'alii.' Does he refer to Locke, who suggests the possibility of matter thinking?

quid sibi velint satis intelligere. E contrario, qui *mentem* esse principium motus volunt, sententiam propria experientia munitam proferunt, hominumque omni ævo doctissimorum suffragiis comprobatam.

32. Primus Anaxagoras[1] *τὸν νοῦν* introduxit, qui motum inerti materiæ imprimeret. Quam quidem sententiam probat etiam Aristoteles[2], pluribusque confirmat, aperte pronuncians primum movens esse immobile, indivisibile, et nullam habens magnitudinem. Dicere autem, omne motivum esse mobile, recte animadvertit idem esse ac siquis diceret, omne ædificativum esse ædificabile, *Physic.* lib. viii. Plato insuper in Timæo[3] tradit machinam hanc corpoream, seu mundum visibilem, agitari et animari a mente, quæ sensum omnem fugiat. Quinetiam hodie philosophi Cartesiani[4] principium motuum naturalium Deum agnoscunt. Et Newtonus[5] passim nec obscure innuit, non solummodo motum ab initio a numine profectum esse, verum adhuc systema mundanum ab eodem actu moveri. Hoc sacris literis consonum est: hoc scholasticorum calculo comprobatur. Nam etsi Peripatetici naturàm tradant esse principium motus et quietis, interpretantur tamen naturam naturantem esse Deum[6]. Intelligunt nimirum corpora omnia systematis hujusce mundani a mente præpotenti juxta certam et constantem rationem[7] moveri.

33. Cæterum qui principium vitale corporibus tribuunt, obscurum aliquid et rebus parum conveniens fingunt. Quid enim aliud est vitali principio præditum esse quam

[1] See Aristotle, *De Anima*, I. ii. 5, 13; Diogenes Laertius, Lib. VI. i. 6.

[2] *Nat. Ausc.* VIII. 15; also *De Anima*, III. x. 7.

[3] Hardly any passage in the *Timæus* exactly corresponds to this. The following is, perhaps, the most pertinent:—*Κίνησιν γὰρ ἀπένειμεν αὐτῷ τὴν τοῦ σώματος οἰκείαν, τῶν ἑπτὰ τὴν περὶ νοῦν καὶ φρόνησιν μάλιστα οὖσαν* (p. 34 a). Aristotle quotes the *Timæus* in the same connexion, *De Anima*, I. iii. 11.

[4] 'philosophi Cartesiani.' Secundum Cartesium causa generalis omnium motuum et quietum est Deus.—Derodon, *Physica*, I. ix. 30.

[5] *Principia Mathematica*—Scholium Generale.

[6] 'naturam naturantem esse Deum'—as we might say, God considered as imminent cause in the universe. See St. Thomas Aquinas, *Opera*, vol. XXII. Quest. 6, p. 27.

[7] 'juxta certam et constantem rationem.' While all changes in Nature are determined by Will, it is not capricious but rational Will. The so-called arbitrariness of the Language of Nature is relative to us, and from our point of view. In itself, the universe of reality expresses Perfect Reason.

vivere? aut vivere quam se movere, sistere, et statum suum mutare? Philosophi autem hujus sæculi doctissimi pro principio indubitato ponunt, omne corpus perseverare in statu suo, vel quietis vel motus uniformis in directum, nisi quatenus aliunde cogitur statum illum mutare: e contrario, in anima sentimus esse facultatem tam statum suum quam aliarum rerum mutandi; id quod proprie dicitur vitale, animamque a corporibus longe discriminat.

34. Motum et quietem in corporibus recentiores considerant velut duos status existendi, in quorum utrovis corpus omne sua natura iners permaneret[1], nulla vi externa urgente. Unde colligere licet, eandem esse causam motus et quietis, quæ est existentiæ corporum. Neque enim quærenda videtur alia causa existentiæ corporis successivæ in diversis partibus spatii, quam illa unde derivatur existentia ejusdem corporis successiva in diversis partibus temporis. De Deo autem Optimo Maximo rerum omnium Conditore et Conservatore tractare, et qua ratione res cunctæ a summo et vero Ente pendeant demonstrare, quamvis pars sit scientiæ humanæ præcellentissima, spectat tamen potius ad philosophiam primam[2], seu metaphysicam et theologiam, quam ad philosophiam naturalem, quæ hodie fere omnis continetur in experimentis et mechanica. Itaque cognitionem de Deo vel supponit philosophia naturalis, vel mutuatur ab aliqua scientia superiori. Quanquam verissimum sit, naturæ investigationem scientiis altioribus argumenta egregia ad sapientiam, bonitatem, et potentiam Dei illustrandam et probandam undequaque subministrare.

35. Quod hæc minus intelligantur, in causa est, cur nonnulli immerito repudient physicæ principia mathematica, eo scilicet nomine quod illa causas rerum efficientes non assignant: quum tamen revera ad physicam aut mechanicam spectet regulas[3] solummodo, non causas efficientes, impulsionum attractionumve, et ut verbo dicam, motuum leges tradere; ex iis vero positis phænomenon particularium solutionem, non autem causam efficientem assignare.

[1] 'permaneret.' Cf. sect. 51.

[2] 'spectat potius ad philosophiam primam.' The drift of the *De Motu* is to distinguish the physical sequences of molecular motion, which the physical sciences articulate, from the Power with which metaphysics and theology are concerned, and which we approach through consciousness.

[3] 'regulas.' Cf. *Siris*, sect. 231–235.

36. Multum intererit considerasse quid proprie sit principium, et quo sensu intelligenda sit vox illa apud philosophos[1]. Causa quidem vera efficiens et conservatrix rerum omnium jure optimo appellatur fons et principium earundem. Principia vero philosophiæ experimentalis proprie dicenda sunt fundamenta quibus illa innititur, seu fontes unde derivatur, (non dico existentia, sed) cognitio rerum corporearum, sensus utique ex experientia. Similiter, in philosophia mechanica, principia dicenda sunt, in quibus fundatur et continetur universa disciplina, leges illæ motuum primariæ, quæ experimentis comprobatæ, ratiocinio etiam excultæ sunt et redditæ universales[2]. Hæ motuum leges commode dicuntur principia, quoniam ab iis tam theoremata mechanica generalia quam particulares *τῶν φαινομένων* explicationes derivantur.

37. Tum nimirum dici potest quidpiam explicari mechanice, cum reducitur ad ista principia simplicissima et universalissima, et per accuratum ratiocinium, cum iis consentaneum et connexum esse ostenditur. Nam inventis semel naturæ legibus, deinceps monstrandum est philosopho, ex constanti harum legum observatione, hoc est, ex iis principiis phænomenon quodvis necessario consequi: id quod est phænomena explicare et solvere, causamque, id est rationem cur fiant, assignare.

38. Mens humana gaudet scientiam suam extendere et dilatare. Ad hoc autem notiones et propositiones generales efformandæ sunt, in quibus quodam modo continentur propositiones et cognitiones particulares, quæ tum demum intelligi creduntur cum ex primis illis continuo nexu deducuntur. Hoc geometris notissimum est. In mechanica etiam præmittuntur notiones, hoc est definitiones, et enunciationes de motu primæ et generales, ex quibus

[1] Having, in the preceding sections, contrasted perceived motions and their immanent originating Power—matter and mind—physics and metaphysics—he proceeds in this and the seven following sections to explain more fully what he means by *principium* and also the two meanings (metaphysical and mechanical) of *solutio*. By *principium*, in philosophy, he understands universally efficient supersensible Power. In natural philosophy the term is applied to the orderly sequences manifested to our senses, not to the active cause of the order.

[2] 'ratiocinio . . . redditæ universales.' Relations of the data of sense to universalising reason are here recognised.

postmodum methodo mathematica conclusiones magis remotæ et minus generales colliguntur. Et sicut per applicationem theorematum geometricorum, corporum particularium magnitudines mensurantur; ita etiam per applicationem theorematum mechanices universalium, systematis mundani partium quarumvis motus, et phænomena inde pendentia, innotescunt et determinantur: ad quem scopum unice collineandum physico.

39. Et quemadmodum geometræ, disciplinæ causa, multa comminiscuntur, quæ nec ipsi describere possunt, nec in rerum natura invenire; simili prorsus ratione mechanicus voces quasdam abstractas et generales adhibet, fingitque in corporibus *vim*, *actionem*, *attractionem*, *solicitationem*, &c. quæ ad theorias et enunciationes, ut et computationes de motu apprime utiles sunt, etiamsi in ipsa rerum veritate et corporibus actu existentibus frustra quærerentur, non minus quam quæ a geometris per abstractionem mathematicam finguntur.

40. Revera ope sensuum nil nisi effectus seu qualitates sensibiles, et res corporeas omnino passivas, sive in motu sint sive in quiete, percipimus: ratioque et experientia activum nihil præter mentem aut animam esse suadet. Quidquid ultra fingitur, id ejusdem generis esse cum aliis hypothesibus et abstractionibus mathematicis existimandum: quod penitus animo infigere oportet. Hoc ni fiat, facile in obscuram scholasticorum subtilitatem, quæ per tot sæcula, tanquam dira quædam pestis, philosophiam corrupit, relabi possumus.

41. Principia mechanica legesque motuum aut naturæ universales, sæculo ultimo feliciter inventæ, et subsidio geometriæ tractatæ et applicatæ, miram lucem in philosophiam intulerunt. Principia vero metaphysica causæque reales efficientes motus et existentiæ corporum attributorumve corporeorum nullo modo ad mechanicam aut experimenta pertinent; neque eis lucem dare possunt, nisi quatenus, velut præcognita, inserviant ad limites physicæ præfiniendos, eaque ratione ad tollendas difficultates quæstionesque peregrinas.

42. Qui a spiritibus motus principium petunt, ii vel rem corpoream vel incorpoream voce *spiritus* intelligunt. Si rem corpoream, quantumvis tenuem, tamen redit difficultas: si incorpoream, quantumvis id verum sit, attamen ad

physicam non proprie pertinet. Quod si quis philosophiam naturalem ultra limites experimentorum et mechanicæ extenderit, ita ut rerum etiam incorporearum, et inextensarum cognitionem complectatur, latior quidem illa vocis acceptio tractationem de anima, mente, seu principio vitali admittit. Cæterum commodius erit, juxta usum jam fere receptum, ita distinguere inter scientias, ut singulæ propriis circumscribantur cancellis, et philosophus naturalis totus sit in experimentis, legibusque motuum, et principiis mechanicis, indeque depromptis ratiociniis; quidquid autem de aliis rebus protulerit, id superiori alicui scientiæ acceptum referat. Etenim ex cognitis naturæ legibus pulcherrimæ theoriæ, praxes etiam mechanicæ ad vitam utiles consequuntur. Ex cognitione autem ipsius naturæ Auctoris considerationes longe præstantissimæ quidem illæ, sed metaphysicæ, theologicæ, morales oriuntur.

43. De *principiis* hactenus: nunc dicendum de *natura* motus[1]. Atque is quidem, cum sensibus clare percipiatur, non tam natura sua, quam doctis philosophorum commentis obscuratus est. Motus nunquam in sensus nostros incurrit sine mole corporea, spatio, et tempore. Sunt tamen qui motum, tanquam ideam quandam simplicem et abstractam, atque ab omnibus aliis rebus sejunctam, contemplari student. Verum idea illa tenuissima et subtilissima[2] intellectus aciem eludit: id quod quilibet secum meditando experiri potest. Hinc nascuntur magnæ difficultates de natura motus, et definitiones, ipsa re quam illustrare debent longe obscuriores. Hujusmodi sunt definitiones illæ Aristotelis et Scholasticorum[3], qui motum dicunt esse

[1] 'natura motus.' Sect. 43–66 treat of the nature of the *effect*—i.e. perceptible motion, as distinguished from its true causal origin (*principium*) in mind or spirit. The origin of motion belongs to metaphysics; its nature, as dependent on percipient experience, belongs to physics. Is motion independent of a plurality of bodies; or does it involve bodies in relation to other bodies, so that absolute motion is meaningless? Cf. *Principles*, sect. 111–116.

[2] 'idea illa tenuissima et subtilissima.' The difficulty as to definition of motion is attributed to abstractions, and the inclination of the scholastic mind to prefer these to concrete experience.

[3] Motion is thus defined by Aristotle:—Διὸ ἡ κίνησις ἐντελέχεια τοῦ κινητοῦ, ᾗ κινητόν. *Nat. Ausc.* III. ii; see also i. and iii. Cf. Derodon, *Physica*, I. ix.

actum mobilis quatenus est mobile, vel actum entis in potentia quatenus in potentia. Hujusmodi etiam est illud viri [1] inter recentiores celebris, qui asserit *nihil in motu esse reale præter momentaneum illud quod in vi ad mutationem nitente constitui debet.* Porro constat, horum et similium definitionum auctores in animo habuisse abstractam motus naturam, seclusa omni temporis et spatii consideratione, explicare: sed qua ratione abstracta illa motus quintessentia (ut ita dicam) intelligi possit, non video.

44. Neque hoc contenti, ulterius pergunt, partesque ipsius motus a se invicem dividunt et secernunt, quarum ideas distinctas, tanquam entium revera distinctorum, efformare conantur. Etenim sunt qui motionem a motu distinguant, illam velut instantaneum motus elementum spectantes. Velocitatem insuper, conatum, vim, impetum totidem res essentia diversas esse volunt, quarum quæque per propriam atque ab aliis omnibus segregatam et abstractam ideam intellectui objiciatur. Sed in hisce rebus discutiendis, stantibus iis quæ supra disseruimus [2], non est cur diutius immoremur.

45. Multi etiam per *transitum* [3] motum definiunt, obliti, scilicet, transitum ipsum sine motu intelligi non posse, et per motum definiri oportere. Verissimum adeo est definitiones, sicut nonnullis rebus lucem, ita vicissim aliis tenebras afferre. Et profecto, quascumque res sensu percipimus, eas clariores aut notiores definiendo efficere vix quisquam potuerit. Cujus rei vana spe allecti res faciles difficillimas [4] reddiderunt philosophi, mentesque suas difficultatibus, quas ut plurimum ipsi peperissent, implicavere. Ex hocce definiendi, simul ac abstrahendi studio, multæ tam de motu quam de aliis rebus natæ subtilissimæ quæstiones, eædemque nullius utilitatis, hominum ingenia frustra torserunt; adeo ut Aristoteles ultro et sæpius fateatur motum esse *actum quendam cognitu difficilem* [5], et nonnulli ex veteribus usque eo nugis exercitati deveniebant, ut motum omnino esse negarent [6].

[1] Newton.

[2] Cf. sect. 3–42.

[3] Descartes, *Principia*, P. II. § 25; also Borellus, *De Vi Percussionis*, p. 1.

[4] 'res faciles difficillimas.' Cf. *Principles*, 'Introduction,' sect. 1.

[5] Καὶ διὰ τοῦτο δὴ χαλεπὸν αὐτὴν λαβεῖν τί ἐστίν. *Nat. Ausc.* III. ii.

[6] e.g. Zeno, in his noted argument against the possibility of motion, referred to as a signal example of fallacy.

46. Sed hujusmodi minutiis distineri piget. Satis sit fontes solutionum indicasse: ad quos etiam illud adjungere libet: quod ea quæ de infinita divisione temporis et spatii in mathesi traduntur, ob congenitam rerum naturam paradoxa et theorias spinosas (quales sunt illæ omnes in quibus agitur de infinito [1]) in speculationes de motu intulerunt. Quidquid autem hujus generis sit, id omne motus commune habet cum spatio et tempore, vel potius ad ea refert acceptum.

47. Et quemadmodum ex una parte nimia abstractio seu divisio rerum vere inseparabilium, ita ab altera parte compositio seu potius confusio rerum diversissimarum motus naturam perplexam reddidit. Usitatum enim est motum cum causa motus efficiente confundere [2]. Unde accidit ut motus sit quasi biformis, unam faciem sensibus obviam, alteram caliginosa nocte obvolutam habens. Inde obscuritas et confusio, et varia de motu paradoxa originem trahunt, dum effectui perperam tribuitur id quod revera causæ solummodo competit.

48. Hinc oritur opinio illa, *eandem* semper motus quantitatem conservari [3]. Quod, nisi intelligatur de vi et potentia causæ, sive causa illa dicatur natura, sive νοῦς, vel quodcunque tandem agens sit, falsum esse cuivis facile constabit. Aristoteles [4] quidem l. viii. *Physicorum*, ubi quærit utrum motus factus sit et corruptus, an vero ab æterno tanquam vita immortalis insit rebus omnibus, vitale principium potius, quam effectum externum, sive mutationem loci [5], intellexisse videtur.

49. Hinc etiam est, quod multi suspicantur motum non esse meram passionem in corporibus. Quod si intelligamus id quod in motu corporis sensibus objicitur, quin omnino passivum sit nemo dubitare potest. Ecquid enim in se habet successiva corporis existentia in diversis locis, quod actionem referat, aut aliud sit quam nudus et iners effectus?

[1] 'de infinito, &c.' Cf. *Principles*, sect. 130–132, and the *Analyst* passim, for Berkeley's treatment of infinitesimals.

[2] 'confundere.' Cf. sect. 3–42 for illustrations of this confusion.

[3] The modern conception of the 'conservation of force.'

[4] Aristotle states the question in *Nat. Ausc.* VIII. cap. i, and solves it in cap. iv.

[5] 'mutatio loci' is the effect, i.e. motion perceived by sense; 'vitale principium' the real cause, i.e. vital rational agency.

50. Peripatetici, qui dicunt motum esse actum unum utriusque, moventis et moti[1], non satis discriminant causam ab effectu. Similiter, qui nisum aut conatum in motu fingunt, aut idem corpus simul in contrarias partes ferri putant, eadem idearum confusione, eadem vocum ambiguitate ludificari videntur.

51. Juvat multum, sicut in aliis omnibus, ita in scientia de motu accuratam diligentiam adhibere, tam ad aliorum conceptus intelligendos quam ad suos enunciandos: in qua re nisi peccatum esset, vix credo in disputationem trahi potuisse, utrum corpus indifferens sit ad motum et ad quietem, necne. Quoniam enim experientia constat, esse legem naturæ primariam, ut corpus perinde perseveret in *statu motus ac quietis, quamdiu aliunde nihil accidat ad statum istum mutandum*; et propterea vim inertiæ sub diverso respectu esse vel resistentiam, vel impetum, colligitur: hoc sensu profecto corpus dici potest sua natura indifferens ad motum vel quietem. Nimirum tam difficile est quietem in corpus motum, quam motum in quiescens inducere: cum vero corpus pariter conservet statum utrumvis, quidni dicatur ad utrumvis se habere indifferenter?

52. Peripatetici pro varietate mutationum, quas res aliqua subire potest, varia motus genera distinguebant. Hodie de motu agentes intelligunt solummodo *motum localem*[2]. Motus autem localis intelligi nequit nisi simul intelligatur quid sit *locus*: is vero a neotericis[3] definitur *pars spatii quam corpus occupat*: unde dividitur in relativum et absolutum pro ratione spatii. Distinguunt enim inter spatium absolutum sive verum, ac relativum sive apparens. Volunt scilicet dari spatium undequaque immensum, immobile, insensibile, corpora universa permeans et continens, quod

[1] 'moventis et moti,' i. e. as concauses.

[2] 'motum localem.' Sect. 52–65 discuss the reality of absolute or empty space, in contrast with concrete space realised in perception of the local relations of bodies. The meaninglessness of absolute space and motion is argued. Cf. *Principles*, sect. 116, 117. See Locke's *Essay*, Bk. II. ch. 13, 15, 17; also *Papers which passed between Mr. Leibnitz and Dr. Clarke in* 1715–16, pp. 55–59; 73–81; 97–103, &c. Leibniz calls absolute space 'an ideal of some modern Englishman.'

[3] Newton's *Principia*, Def. Sch. III. See also Derodon, *Physica*, P. I. cap. vi. § 1.

vocant spatium absolutum. Spatium autem a corporibus comprehensum vel definitum, sensibusque adeo subjectum, dicitur spatium relativum, apparens, vulgare.

53. Fingamus itaque corpora cuncta destrui, et in nihilum redigi. Quod reliquum est vocant spatium absolutum, omni relatione quæ a situ et distantiis corporum oriebatur, simul cum ipsis corporibus, sublata. Porro spatium illud est infinitum, immobile, indivisibile, insensibile, sine relatione et sine distinctione. Hoc est, omnia ejus attributa sunt privativa vel negativa: videtur igitur esse merum nihil [1]. Parit solummmodo difficultatem aliquam quod extensum sit. Extensio autem est qualitas positiva. Verum qualis tandem extensio est illa quæ nec dividi potest, nec mensurari, cujus nullam partem, nec sensu percipere, nec imaginatione depingere possumus? Etenim nihil in imaginationem cadit, quod, ex natura rei, non possibile est ut sensu percipiatur; siquidem *imaginatio* [2] nihil aliud est quam facultas representatrix rerum sensibilium, vel actu existentium, vel saltem possibilium. Fugit insuper *intellectum purum* [2], quum facultas illa versetur tantum circa res spirituales et inextensas, cujusmodi sunt mentes nostræ, earumque habitus, passiones, virtutes, et similia. Ex spatio igitur absoluto auferamus modo vocabula, et nihil remanebit in sensu, imaginatione, aut intellectu: nihil aliud ergo iis designatur, quam pura privatio aut negatio, hoc est, merum nihil.

54. Confitendum omnino est nos circa hanc rem gravissimis præjudiciis teneri, a quibus ut liberemur, omnis animi vis exercenda. Etenim multi, tantum abest quod spatium absolutum pro nihilo ducant, ut rem esse ex omnibus (Deo excepto) unicam existiment, quæ annihilari non possit: statuantque illud suapte natura necessario existere, æternumque esse et increatum, atque adeo attributorum divinorum particeps [3]. Verum enimvero quum certissimum sit, res omnes, quas nominibus designamus, per qualitates

[1] Cf. Locke on a vacuum, and the 'possibility of space existing without matter,' *Essay*, Bk. II. ch. 13.

[2] Note the account here given of *imagination* and *intellect*, as distinguished from *sense*, which may be compared with *αἴσθησις*, *φαντασία*, and *νοῦς* in Aristotelian psychology.

[3] 'attributorum divinorum particeps.' See Samuel Clarke, in his *Demonstration*, and in the *Papers between Clarke and Leibnitz*.

aut relationes, vel aliqua saltem ex parte cognosci (ineptum enim foret vocabulis uti quibus cogniti nihil, nihil notionis, ideæ vel conceptus subjiceretur), inquiramus diligenter, utrum formare liceat *ideam* ullam spatii illius puri, realis, absoluti, quod post omnium corporum annihilationem perseveret existere. Ideam porro talem paulo acrius intuens, reperio ideam esse nihili purissimam, si modo idea appellanda sit. Hoc ipse summa adhibita diligentia expertus sum: hoc alios pari adhibita diligentia experturos reor.

55. Decipere nos nonnunquam solet, quod aliis omnibus corporibus imaginatione sublatis, *nostrum*[1] tamen manere supponimus. Quo supposito, motum membrorum ab omni parte liberrimum imaginamur. Motus autem sine spatio concipi non potest. Nihilominus si rem attento animo recolamus, constabit primo concipi spatium relativum partibus nostri corporis definitum: 2°. movendi membra potestatem liberrimam nullo obstaculo retusam: et præter hæc duo nihil. Falso tamen credimus tertium aliquod, spatium videlicet immensum, realiter existere, quod liberam potestatem nobis faciat movendi corpus nostrum: ad hoc enim requiritur absentia solummodo aliorum corporum. Quam absentiam, sive privationem corporum, nihil esse positivum fateamur necesse est[2].

56. Cæterum hasce res nisi quis libero et acri examine perspexerit, verba et voces parum valent. Meditanti vero, et rationes secum reputanti, ni fallor, manifestum erit, quæcunque de spatio puro et absoluto prædicantur, ea omnia de nihilo prædicari posse. Qua ratione mens humana facillime liberatur a magnis difficultatibus simulque ab ea absurditate tribuendi existentiam necessariam[3] ulli rei præterquam soli Deo optimo maximo.

57. In proclivi esset sententiam nostram argumentis a posteriori (ut loquuntur) ductis confirmare, quæstiones de spatio absoluto proponendo; exempli gratia, utrum sit substantia vel accidens? utrum creatum vel increatum?

[1] 'nostrum,' sc. corpus. When we imagine space emptied of bodies, we are apt to forget that our own bodies are part of the material world.

[2] [Vide quæ contra spatium absolutum disseruntur in libro *De Principiis Cognitionis Humanæ*, idiomate anglicano decem abhinc annis edito.]—Author. He refers to sect. 116 of the *Principles*.

[3] He treats absolute space as nothing, and relative space as dependent on Perception and Will.

et absurditates ex utravis parte consequentes demonstrando. Sed brevitati consulendum. Illud tamen omitti non debet, quod sententiam hancce Democritus olim calculo suo comprobavit, uti auctor est Aristoteles l. i. *Phys.*[1] ubi hæc habet: *Democritus solidum et inane ponit principia, quorum aliud quidem ut quod est, aliud ut quod non est esse dicit.* Scrupulum si forte injiciat, quod distinctio illa inter spatium absolutum et relativum a magni nominis philosophis usurpetur, eique quasi fundamento inædificentur multa præclara theoremata, scrupulum istum vanum esse, ex iis quæ secutura sunt, apparebit.

58. Ex præmissis patet, non convenire ut definiamus locum verum corporis esse partem spatii absoluti quam occupat corpus, motumque verum seu absolutum esse mutationem loci veri et absoluti. Siquidem omnis locus est relativus, ut et omnis motus. Veruntamen ut hoc clarius appareat, animadvertendum est, motum nullum intelligi posse sine determinatione aliqua seu directione, quæ quidem intelligi nequit, nisi præter corpus motum, nostrum etiam corpus, aut aliud aliquod, simul intelligatur existere. Nam sursum, deorsum, sinistrorsum, dextrorsum, omnesque plagæ et regiones in relatione aliqua fundantur, et necessario corpus a moto diversum connotant et supponunt. Adeo ut, si reliquis corporibus in nihilum redactis, globus, exempli gratia, unicus existere supponatur; in illo motus nullus concipi possit: usque adeo necesse est, ut detur aliud corpus, cujus situ motus determinari intelligatur. Hujus sententiæ veritas clarissime elucebit, modo corporum omnium tam nostri quam aliorum, præter globum istum unicum, annihilationem recte supposuerimus.

59. Concipiantur porro duo globi, et præterea nil corporeum, existere. Concipiantur deinde vires quomodocunque applicari: quicquid tandem per applicationem virium intelligamus, motus circularis duorum globorum circa commune centrum nequit per imaginationem concipi. Supponamus deinde cœlum fixarum creari: subito ex concepto appulsu globorum ad diversas cœli istius partes motus concipietur. Scilicet cum motus natura sua sit relativus, concipi non potuit priusquam darentur corpora correlata. Quemadmodum nec ulla relatio alia sine correlatis concipi potest.

[1] *Phys. a.* 5. 188 a. 22, 23.

60. Ad motum circularem quod attinet, putant multi, crescente motu vero circulari, corpus necessario magis semper magisque ab axe niti. Hoc autem ex eo provenit, quod, cum motus circularis spectari possit tanquam in omni momento a duabus directionibus ortum trahens, una secundum radium, altera secundum tangentem ; si in hac ultima tantum directione impetus augeatur, tum a centro recedet corpus motum, orbita vero desinet esse circularis. Quod si æqualiter augeantur vires in utraque directione, manebit motus circularis, sed acceleratus conatu, qui non magis arguet vires recedendi ab axe, quam accedendi ad eundem, auctas esse. Dicendum igitur, aquam in situla circumactam ascendere ad latera vasis, propterea quod, applicatis novis viribus in directione tangentis ad quamvis particulam aquæ, eodem instanti non applicentur novæ vires æquales centripetæ. Ex quo experimento nullo modo sequitur, motum absolutum circularem per vires recedendi ab axe motus necessario dignosci. Porro qua ratione intelligendæ sunt voces istæ, *vires corporum et conatus*, ex præmissis satis superque innotescit.

61. Quo modo curva considerari potest tanquam constans ex rectis infinitis, etiamsi revera ex illis non constet, sed quod ea hypothesis ad geometriam utilis sit, eodem modo motus circularis spectari potest tanquam a directionibus rectilineis infinitis ortum ducens, quæ suppositio utilis est in philosophia mechanica. Non tamen ideo affirmandum, impossibile esse, ut centrum gravitatis corporis cujusvis successive existat in singulis punctis peripheriæ circularis, nulla ratione habita directionis ullius rectilineæ, sive in tangente sive in radio.

62. Haud omittendum est, motum lapidis in funda, aut aquæ in situla circumacta, dici non posse motum vere circularem, juxta mentem eorum qui per partes spatii absoluti definiunt loca vera corporum; cum sit mire compositus ex motibus non solum situlæ vel fundæ, sed etiam telluris diurno circa proprium axem, menstruo circa commune centrum gravitatis terræ et lunæ, et annuo circa solem : et propterea particula quævis lapidis vel aquæ describat lineam a circulari longe abhorrentem. Neque revera est, qui creditur, conatus axifugus, quoniam non respicit unum aliquem axem ratione spatii absoluti, supposito quod detur tale spatium : proinde non video quomodo appellari possit

conatus unicus, cui motus vere circularis tanquam proprio et adaequato effectui respondet.

63. Motus nullus dignosci potest, aut mensurari, nisi per res sensibiles. Cum ergo spatium absolutum nullo modo in sensus incurrat, necesse est ut inutile prorsus sit ad distinctionem motuum. Præterea determinatio sive directio motui essentialis est, illa vero in relatione consistit. Ergo impossibile est ut motus absolutus concipiatur.

64. Porro quoniam pro diversitate loci relativi varius sit motus ejusdem corporis, quinimo uno respectu moveri, altero quiescere dici quidpiam possit [1]; ad determinandum motum verum et quietem veram, quo scilicet tollatur ambiguitas, et consulatur mechanicæ philosophorum, qui systema rerum latius contemplantur, satis fuerit spatium relativum fixarum cœlo, tanquam quiescente spectato, conclusum adhibere, loco spatii absoluti. Motus autem et quies tali spatio relativo definiti, commode adhiberi possunt loco absolutorum, qui ab illis nullo symptomate discerni possunt. Etenim imprimantur utcunque vires, sint quicunque conatus, concedamus motum distingui per actiones in corpora exercitas; nunquam tamen inde sequetur, dari spatium illud et locum absolutum, ejusque mutationem esse locum verum.

65. Leges motuum, effectusque, et theoremata eorundem proportiones et calculos continentia, pro diversis viarum figuris, accelerationibus itidem et directionibus diversis, mediisque plus minusve resistentibus, hæc omnia constant sine calculatione motus absoluti. Uti vel ex eo patet quod, quum secundum illorum principia qui motum absolutum inducunt, nullo symptomate scire liceat, utrum integra rerum compages quiescat, an moveatur uniformiter in directum, perspicuum sit motum absolutum nullius corporis cognosci posse.

66. Ex dictis patet ad veram motus naturam perspiciendam summopere juvaturum, 1°. Distinguere inter hypotheses mathematicas et naturas rerum: 2°. Cavere ab abstractionibus: 3°. Considerare motum tanquam aliquid sensibile, vel saltem imaginabile; mensurisque relativis esse contentos. Quæ si fecerimus, simul clarissima quæque

[1] See Locke, *Essay*, Bk. II. ch. 13, §§ 7–10.

philosophiæ mechanicæ theoremata, quibus reserantur naturæ recessus, mundique systema calculis humanis subjicitur, manebunt intemerata, et motus contemplatio a mille minutiis, subtilitatibus, ideisque abstractis libera evadet. Atque hæc de natura motus dicta sufficiant.

67. Restat, ut disseramus de causa communicationis motuum [1]. Esse autem vim impressam in corpus mobile causam motus in eo, plerique existimant. Veruntamen illos non assignare causam motus cognitam, et a corpore motuque distinctam, ex præmissis constat. Patet insuper vim non esse rem certam et determinatam, ex eo quod viri summi de illa multum diversa, immo contraria, proferant, salva tamen in consequentiis veritate. Siquidem Newtonus [2] ait vim impressam consistere in actione sola, esseque actionem exercitam in corpus ad statum ejus mutandum, nec post actionem manere. Torricellius [3] cumulum quendam sive aggregatum virium impressarum per percussionem in corpus mobile recipi, ibidemque manere atque impetum constituere contendit. Idem fere Borellus [4] aliique prædicant. At vero, tametsi inter se pugnare videantur Newtonus et Torricellius, nihilominus, dum singuli sibi consentanea proferunt, res satis commode ab utrisque explicatur. Quippe vires omnes corporibus attributæ tam sunt hypotheses mathematicæ quam vires attractivæ in planetis et sole. Cæterum entia mathematica in rerum natura stabilem essentiam non habent: pendent autem a notione definientis; unde eadem res diversimode explicari potest.

68. Statuamus motum novum in corpore percusso conservari, sive per vim insitam, qua corpus quodlibet perseverat in statu suo vel motus vel quietis uniformis in directum; sive per vim impressam, durante percussione in corpus percussum receptam ibidemque permanentem; idem erit quoad rem, differentia existente in nominibus tantum. Similiter, ubi mobile percutiens perdit, et

[1] Sect. 67–72 treat of the supposed ejection of motion from the striking body into the body struck. Is this only metaphorical? Is the motion received by the latter to be supposed identical with, or equivalent to, that given forth by the former?

[2] *Principia*, Def. IV.

[3] *Lezioni Accademiche.*

[4] *De Vi Percussionis*, cap. IX.

percussum acquirit motum, parum refert disputare, utrum motus acquisitus sit idem numero cum motu perdito, ducit enim in minutias metaphysicas et prorsus nominales de identitate. Itaque sive dicamus motum transire a percutiente in percussum, sive in percusso motum de novo generari, destrui autem in percutiente, res eodem recidit. Utrobique intelligitur unum corpus motum perdere, alterum acquirere, et præterea nihil.

69. Mentem, quæ agitat et continet universam hancce molem corpoream, estque causa vera efficiens motus, eandem esse, proprie et stricte loquendo, causam communicationis ejusdem haud negaverim. In philosophia tamen physica, causas et solutiones phænomenon a principiis mechanicis petere oportet. Physice igitur res explicatur non assignando ejus causam vere agentem et incorpoream, sed demonstrando ejus connexionem cum principiis mechanicis: cujusmodi est illud, *actionem et reactionem esse semper contrarias et æquales*[1], a quo, tanquam fonte et principio primario, eruuntur regulæ de motuum communicatione, quæ a neotericis, magno scientiarum bono, jam ante repertæ sunt et demonstratæ.

70. Nobis satis fuerit, si innuamus principium illud alio modo declarari potuisse. Nam si vera rerum natura potius quam abstracta mathesis spectetur, videbitur rectius dici, in attractione vel percussione passionem corporum, quam actionem, esse utrobique æqualem. Exempli gratia, lapis fune equo alligatus tantum trahitur versus equum, quantum equus versus lapidem: corpus etiam motum in aliud quiescens impactum, patitur eandem mutationem cum corpore quiescente. Et quoad effectum realem, percutiens est item percussum, percussumque percutiens. Mutatio autem illa est utrobique, tam in corpore equi quam in lapide, tam in moto quam in quiescente, passio mera. Esse autem vim, virtutem, aut actionem corpoream talium effectuum vere et proprie causatricem non constat. Corpus motum in quiescens impingitur; loquimur tamen active, dicentes illud hoc impellere: nec absurde in mechanicis, ubi ideæ mathematicæ potius quam veræ rerum naturæ spectantur.

71. In physica, sensus et experientia, quæ ad effectus

[1] Newton's third law of motion.

apparentes solummodo pertingunt, locum habent; in mechanica, notiones abstractæ mathematicorum admittuntur. In philosophia prima, seu metaphysica, agitur de rebus incorporeis, de causis, veritate, et existentia rerum. Physicus series sive successiones rerum sensibilium contemplatur, quibus legibus connectuntur, et quo ordine, quid præcedit tanquam causa, quid sequitur tanquam effectus, animadvertens[1]. Atque hac ratione dicimus corpus motum esse causam motus in altero, vel ei motum imprimere, trahere etiam, aut impellere. Quo sensu causæ secundæ corporeæ intelligi debent, nulla ratione habita veræ sedis virium, vel potentiarum actricum, aut causæ realis cui insunt. Porro dici possunt causæ vel principia mechanica, ultra corpus, figuram, motum, etiam axiomata scientiæ mechanicæ primaria, tanquam causæ consequentium spectata.

72. Causæ vere activæ meditatione tantum et ratiocinio e tenebris erui quibus involvuntur possunt, et aliquatenus cognosci. Spectat autem ad philosophiam primam, seu metaphysicam, de iis agere. Quodsi cuique scientiæ provincia sua[2] tribuatur, limites assignentur, principia et objecta accurate distinguantur, quæ ad singulas pertinent, tractare licuerit majore, cum facilitate, tum perspicuitate.

[1] Berkeley sees in motion only a link in the chain which connects the sensible and intelligible worlds —a conception unfolded in his *Siris*, more than twenty years later.

[2] 'provincia sua.' The *De Motu*, so far as it treats of motion perceptible to the senses, is assigned to physics; in contrast to theology or metaphysics, alone concerned with active causation.

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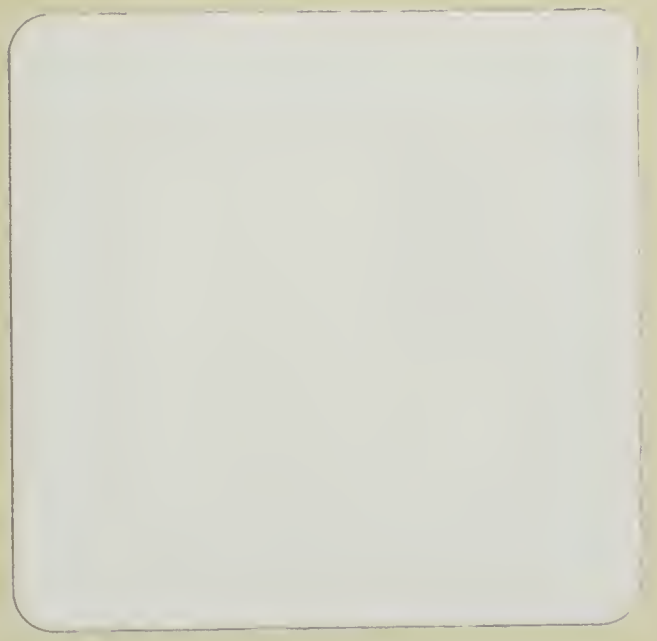

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